Parcel B - Phase II Soil Characterization
Boeing Realty Company
C-6 Facility
Los Angeles, California

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January 1998
K/J 974002.00

PARCEL B - PHASE II SOIL CHARACTERIZATION
BOEING REALTY CORPORATION C-6 FACILITY
LOS ANGELES, CALIFORNIA

EXECUTIVE SUMMARY

This report discusses the Phase II Soil Characterization for Parcel B of the Boeing Realty Corporation (BRC) C-6 Facility (Facility) located at 19503 South Normandie Avenue, Los Angeles, California. The characterization was completed under the oversight of the Los Angeles Region of the Regional Water Quality Control Board (RWQCB) as the lead agency, with input from the Department of Toxic Substance Control (DTSC). The Parcel B Report is the second of three reports that cover most of the Facility. The report sections include:

1.0 Introduction

Section 1.0 describes Parcel B and discusses the purpose of the investigation.

2.0 Parcel B Description

Section 2.0 provides a brief history of the Facility, with particular emphasis on Parcel B, which encompasses Areas 2 and 6. Hydrogeologic setting is summarized, based on published reports and previous work, and geologic units identified from the Phase II Soil Characterization are described.

3.0 Program Design

Section 3.0 presents a detailed description of the Facility-wide soil characterization program. It discusses the historical use of each potential area of concern in Parcel B and explains the rationale used in determining the analytical program.

4.0 Soil Sampling and Analytical Methods

Section 4.0 describes the soil sampling program, including drilling, sampling and analytical methodology, chain of custody, and QA/QC program.

5.0 Investigation Results

Section 5.0 discusses the results from each area and presents findings in tables and figures. The complete laboratory reports are provided in appendices to the report.

6.0 Conclusions

Section 6.0 summarizes the conclusions resulting from the investigation.

7.0 References Cited

Section 7.0 presents a list of references cited throughout the report.

PURPOSE

The purpose of the Phase II Soil Characterization was to characterize the nature of the soils and to identify areas of concern in Parcel B. These data will provide support to develop a risk assessment, to plan future groundwater investigations, and for future feasibility studies and soil remediation, if required. The soil characterization included the

physical properties of the soils, the subsurface distribution of the soil types, the identification of areas of potential concern, and the nature and extent of any chemicals of potential concern (COPCs) within the soils.

LOCATION AND DESCRIPTION OF AREAS 2 AND 6

The Facility is located at 19503 South Normandie Avenue in Los Angeles, California (Figure 1). The Facility is bordered on the north by West 190th Street, on the east by railroad tracks and South Normandie Avenue, on the south by Montrose Chemical and residential properties, and on the west by Western Avenue, Capitol Metals, and International Light Metals (ILM).

Areas 2 and 6 occupy approximately 52 acres in the southwestern portion of the Facility. Area 2, comprising approximately 33 acres, is bordered on the north by Capitol Metals and Area 6, on the east by a Los Angeles Department of Water and Power (LADWP) electrical substation, former Montrose Chemicals, and Jones Chemicals, on the south by residential properties, and on the west by Western Avenue. Area 6, comprising approximately 19 acres, is bordered on the north by portions of the Facility including buildings 4, 11, 13, 14 and 15, on the east by portions of the Facility including buildings 2 and 3, on the South by Area 2, and on the west by Capitol Metals and ILM (Figure 2).

GEOLOGY AND HYDROGEOLOGY

Hydrogeologic setting of the Facility was determined mainly from reference to reports published by the U.S. Geological Survey and the California Department of Water Resources. The Facility is at approximately 50 feet mean sea level (MSL) elevation on the Torrance Plain, a Pleistocene-age marine surface. Near-surface sediments underlying the Facility are assigned to the Lakewood Formation and include marine and continental deposits of late Pleistocene age. Aquifers underlying the Facility include the Semiperched and Gage Aquifers within the Lakewood Formation and the Lynwood and Silverado Aquifers in the deeper San Pedro Formation. Previous groundwater investigations and monitoring at the Facility established that the uppermost groundwater

is at 60 to 70 feet depth in the Semiperched Aquifer, with a hydraulic gradient to the south-southeast, measured at 3.5 feet per mile in late 1996.

Fifteen continuous core borings were drilled throughout the Facility during the Phase II Soil Characterization study. One is located in Area 2 and two are located in Area 6 (Figure 3). Extensive information regarding the soils within 50 feet below the ground surface (bgs) at the Facility was developed from the drilling and geologic logging in the study. Four distinct subsurface units were identified (Q1 through Q4). Three of these soil units correlated over the entire Facility (Q1, Q2, and Q3), while the fourth (Q4) pinches out on the northwest and dips below the depth drilled on the east. The uppermost soils at the Facility consist predominantly of clay and silt. These fine-grained soils are present to about 22 feet bgs on the west and thicken to about 45 feet on the east. Soils below these depths are predominantly sand and silty sand to the 50-foot maximum depth drilled.

FIELD PROGRAM

A Field Sampling Plan was developed based on the findings of the Phase I environmental site assessments of the Facility. The Plan identified the individual areas of potential concern and reviewed the history of the areas. Based on these data, specific analytical testing was proposed at each location. The Plan was reviewed and approved by the RWQCB and DTSC.

Fifty-two soil borings were drilled and 229 soil samples were collected for analysis in the locations investigated for the Phase II Soil Characterization of Parcel B. The soil borings were drilled with either direct hydraulic-push or hollow-stem auger drilling methods. Borings to 10 feet and 25 feet bgs were drilled and sampled by direct-push methods. Borings to 50 feet bgs were drilled by hollow-stem auger.

All soil samples were analyzed for volatile organic compounds (VOCs) and total recoverable petroleum hydrocarbons (TRPH) by EPA Methods 8260 and/or 8010/8020, and 418.1, respectively. Selected additional analyses were performed on an area-by-

area basis and include total petroleum hydrocarbons by EPA Method 8015 modified, semi-volatile organic compounds (SVOCs) by EPA Method 8270 and Title 22 metals, including hexavalent chromium (EPA Methods 6010, 7196, and 7471), polychlorinated biphenyls (PCB) (EPA Method 8080), and pesticides (EPA Method 8080). Most of the samples were first analyzed on site for VOCs and TRPH by state-certified mobile laboratories. If the on-site mobile laboratory analyses detected total VOCs greater than 200 micrograms/kilogram (μg/kg), the samples were also analyzed in a state-certified off-site stationary laboratory for confirmation. As an additional quality assurance (QA) check, the off-site stationary laboratory also analyzed 10 percent of the samples for which the mobile laboratory reported VOCs and TRPH as not detected.

SUMMARY OF FINDINGS

Parcel B, which consists of Areas 2 and 6, was divided into areas of potential concern based on previous facility history. Each of the areas of potential concern were investigated individually. Area 2 was divided into five areas of potential concern (Figure 2):

- Tool Storage Yard
- Scrap Storage Yard
- Buildings 54, 55, and 56
- Area borders with LADWP Electrical Substation
- Area border with Montrose Chemical.

Area 6 was divided into two areas of potential concern (Figure 2):

- Area border with International Light Metals
- Parking Lot

None of the areas of potential concern investigated in Areas 2 and 6 were found to contain COPCs at levels such that they were designated areas of concern. Findings regarding the potential areas of concern are summarized below.

AREA 2

Tool Storage Yard

The Tool Storage Yard is used to store master tools used to make aircraft parts. Most of the tools are composed of lead. However, this area did not contain lead in concentrations, distribution, or frequency of occurrence to be designated as an area of concern.

No VOCs were detected in this area. Petroleum hydrocarbons were detected at low concentrations in 25 of 53 soil samples. TRPH (418.1) was detected at concentrations less than 270 mg/kg in 23 of the samples. TRPH was detected at 1.5 feet bgs in boring 2-11B at 3,200 mg/kg and at 4 feet bgs in boring 2-15 at 6,000 mg/kg, but was not detected in the deeper samples from borings 2BB-2-11B and 2BB-2-15. Motor oil-like hydrocarbons (8015M) were detected in seven samples at concentrations less than 710 mg/kg, and at 4 feet bgs in boring 2-17 at 3,000 mg/kg. The only SVOCs detected were bis(2-ethylhexyl)-phthalate and phenol. Bis(2-ethylhexyl)-phthalate was detected at concentrations ranging from 120 µg/kg to 270 µg/kg in seven of 53 samples at depths ranging from 1 foot bgs to 10 feet bgs, and phenol was detected at 170 µg/kg in the 1-foot bgs sample from boring 2-16.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values. Lead was detected in two borings, 2-16 and 2-11B at 1 foot to 2 feet bgs, respectively, at concentrations below 23 mg/kg, which is well below the TTLC of 1,000 mg/kg and less than ten times the STLC.

Scrap Storage Yard

The Scrap Storage Yard is used to store miscellaneous equipment and material, including a waste oil pump and roll-off bins that were used to collect and transport waste

oil. However, this area did not contain petroleum hydrocarbons in concentrations high enough to be designated as an area of concern.

PCE was detected in boring 2-21 at a concentration of 7.8 μg/kg and 5.2 μg/kg in the 1-foot and 4-foot bgs samples, respectively. Petroleum hydrocarbons, including TRPH (418.1) and motor oil-like hydrocarbons (8015M), were detected at low concentrations ranging from 16 mg/kg to 450 mg/kg in 11 of 21 samples at shallow depths of 1 feet to 4 feet bgs. SVOCs were detected in four of 27 samples at concentrations of less than 230 μg/kg. Certain SVOCs — benz(a)anthracene, chrysene, fluoranthene, phenanthrene, and pyrene — were detected in the 4-foot bgs sample from boring 2-21 at concentrations ranging from 150 mg/kg to 470 mg/kg. Bis(2-ethylhexyl)-phthalate was detected at concentrations ranging from 110 μg/kg to 230 μg/kg in four samples from borings 2-21, 2-27, and 2-30 at depths to 10 feet bgs.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values. Lead was reported in boring 2-28 at 8.6 mg/kg and 2.7 mg/kg in the 1-foot and 4-foot bgs samples. These lead concentrations are well below the TTLC of 1,000 mg/kg and less than ten times the STLC.

Buildings 54, 55 and 56

Buildings 54, 55 and 56 are used for office space and storage of forklifts, service vehicles, and tools. A transformer substation containing PCBs is located adjacent to Building 54. Staining around and on the transformer pad indicated that oil has leaked from the transformer. However, no PCBs were detected in the soil samples collected from this area.

No VOCs were detected in this area. Petroleum hydrocarbons, including TRPH (418.1) and motor oil-like hydrocarbons (8015M), were detected in the samples from boring 2-1 at concentrations ranging from 12 mg/kg to 150 mg/kg at depths ranging from 1 foot to 10 feet bgs.

Area Borders with LADWP Electrical Substation

An LADWP electrical substation is located adjacent to the southeastern corner of Area 2. The electrical substation contains transformers that may contain PCBs. However, no PCBs were detected in the soil samples tested for the 2BB investigation of Parcel B of the BRC C-6 Facility.

No VOCs were detected in this area. Petroleum hydrocarbons, including TRPH (418.1) and motor oil-like hydrocarbons (8015M), were detected in seven of 24 samples at concentrations ranging from 11 mg/kg to 360 mg/kg. Six of these detections were at 1 foot or 4 feet bgs, and one detection (11 mg/kg) was at 25 feet bgs. The only SVOC detected in this area was bis(2-ethylhexyl)-phthalate, which was detected at 3,600 μg/kg and 4,400 μg/kg in the 15-foot and 25-foot bgs samples collected from boring 2-31, respectively.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values.

Area Border with Montrose Chemical

The Montrose Chemical facility is located adjacent to the eastern boundary of Area 2. Montrose is a known source of contamination to soil and groundwater and is currently on the National Priority List (NPL) due to releases of DDT and other chemicals to the environment. However, no DDT or other pesticides were detected in the samples tested for the 2BB investigation of Parcel B of the BRC C-6 Facility.

PCE and TCE were both detected in only one soil sample, 2-34 at a depth of 15 feet bgs and at a concentration of 6.7 μg/kg and 5.1 μg/kg, respectively. Chloroform was detected in the 15-foot bgs samples from borings 2-34 and 2-35 at 6.3 μg/kg and 17 μg/kg, respectively. Petroleum hydrocarbons as TRPH (418.1) were detected in four of 18 samples at concentrations ranging from 12 mg/kg to 56 mg/kg. The highest

concentration (56 mg/kg) was detected at 1 foot bgs in boring 2-35, while concentrations of 12 mg/kg and 13 mg/kg were detected in boring 2-35 at 20 feet and 25 feet bgs, respectively. The only SVOC detected in this area was bis(2-ethylhexyl)-phthalate, which was detected at concentrations ranging from 120 µg/kg to 680 µg/kg in borings 2-33 and 2-34 at depths ranging from 1 foot bgs to 20 feet bgs. No pesticides were detected in this area.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values.

AREA 6

Area Border with International Light Metals

ILM is located adjacent to the western boundary of Area 6. ILM is a RCRA site and a known source of soil and groundwater contamination.

TCE was detected in 25 of 40 samples collected from all 6 borings drilled in this area at concentrations ranging from 5.9 µg/kg to 52 µg/kg. Depending on the boring, it was detected at depths ranging from 1 to 55 feet bgs. Petroleum hydrocarbons as TRPH (418.1) were detected in three samples, two from boring 6-5 and one from boring 6-6, at concentrations ranging from 23 mg/kg to 41 mg/kg, and at shallow depths ranging from 1.5 feet to 4.5 feet bgs. No PCBs were detected in this area.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values.

Parking Lot

This area comprises most of Area 6 and has historically been primarily a parking lot.

No VOCs were detected in this area. Petroleum hydrocarbons, including TRPH (418.1) and motor oil-like hydrocarbons (8015M), were detected in 17 of 61 samples at concentrations ranging from 16 mg/kg to 200 mg/kg, and at depths ranging from 1 foot to 10 feet bgs. No PCBs were detected in this area.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values.

1.0 INTRODUCTION

Kennedy/Jenks Consultants performed a Phase II Soil Characterization of the Boeing Realty Corporation (BRC) C-6 Facility (Facility) in April and May, 1997. A Field Sampling Plan (FSP) was prepared for the soil characterization and reviewed and approved by the Regional Water Quality Control Board, Los Angeles Region (RWQCB), the lead agency, and the Department of Toxic Substance Control (DTSC).

This section provides a description of the general location of the Facility and Parcel B, which is comprised of Areas 2 and 6 of the Facility. The Section also presents the purpose of the Phase II Soil Characterization program.

1.1 C-6 Facility Location

The Facility is approximately 170 acres, located at 19503 South Normandie Avenue in Los Angeles, California (Figure 1). The Facility is bordered on the north by West 190th Street, on the east by railroad tracks and South Normandie Avenue, on the south by Montrose Chemical and residential properties, and on the west by Western Avenue, Capitol Metals, and International Light Metals (ILM).

Parcel B, which consists of Areas 2 and 6, occupies approximately 52 acres in the southwestern portion of the Facility. Area 2, comprising approximately 33 acres, is bordered on the north by Capitol Metals and Area 6, on the east by the Los Angeles Department of Water and Power (LADWP) electrical substation, former Montrose Chemical, and Jones Chemical, on the south by residential properties, and on the west by Western Avenue. Area 6, comprising approximately 19 acres, is bordered on the north by portions of the Facility including buildings 4, 11 13, 14 and 15, on the east by portions of the Facility including buildings 2 and 3, on the south by Area 2, and on the west by Capitol Metals and ILM (Figure 2).

1.2 Purpose

The purpose of the Phase II Soil Characterization was to systematically identify and characterize the nature of the soils above groundwater and areas of concern throughout the Facility, and to support future site remediation, feasibility studies, groundwater investigations, and the ongoing risk assessment. The soil characterization included the physical properties of the soils, the subsurface distribution of the soil types, and the nature and extent of chemicals of potential concern (COPCs) within the soils.

2.0 AREAS 2 AND 6 DESCRIPTION

This section provides a history of the Facility and a description Areas 2 and 6. This section also presents a discussion of the regional and local geology and hydrogeology.

2.1 Description and History of Areas of Investigation

A review of aerial photographs indicated that the Facility was farmland prior to the 1940s (Kennedy/Jenks Consultants, March 1996). The Facility was first developed by the Defense Plant Corporation in 1941, as part of an aluminum reduction plant. The plant was operated by the Aluminum Company of America until late 1944 (Camp, Dresser & McKee, 1991). In 1948, the property was acquired by the Columbia Steel Company. In March 1952, the U.S. Navy purchased the property from the Columbia Steel Company and established Douglas Aircraft Company (DAC) as the contractor and operator of the Facility for the manufacturing of aircraft and aircraft parts. DAC purchased the Facility from the Navy in 1970 (Camp, Dresser & McKee, 1991). The Facility was transferred to BRC in 1996.

Areas 2 and 6 were investigated based on potential areas of concern and to support the ongoing risk assessment. The discussions that follow focus on the general uses of each area. Section 3.0 discusses the historical use of each building and potential area of concern within Areas 2 and 6 based on Phase 1 environmental site assessments conducted by Kennedy/Jenks Consultants in March 1996 and May 1997a.

2.2 Regional Geology And Hydrogeology

The geology and hydrogeology of the region surrounding the Facility were determined mainly from reference to reports published by the U.S. Geological Survey (USGS) (Poland and others, 1959) and the California Department of Water Resources (DWR), (1961). Reference also was made to previous reports prepared by Kennedy/Jenks Consultants for the Facility.

The Facility is located on a broad plain at an elevation of approximately 50 feet MSL. The DWR and USGS define this area as the Torrance Plain, a Pleistocene-age marine surface and a subdivision of the Coastal Plain of Los Angeles and Orange Counties. The ground surface in this area is generally flat with an eastward gradient of about 20 feet per mile (less than one-half percent). Surface drainage is generally toward the Dominguez Channel, about a mile to the east. The Dominguez Channel, in turn, flows southeastward toward the Los Angeles and Long Beach Harbors in San Pedro Bay.

The surface sediments in this area are assigned to the Lakewood Formation (DWR, 1961), a unit defined to include essentially all of the upper Pleistocene sediments in the Los Angeles Coastal Plain area. The Lakewood Formation includes deposits of both marine and continental origin, representing stream transport and sedimentation along the Pleistocene marine plain. In the Facility area, the Lakewood Formation may include the Semiperched Aquifer, the Bellflower Aquiclude, and the Gage Aquifer. The Semiperched Aquifer includes deposits described as Terrace Cover (Poland et al, 1959). Extent and thickness of this unit is not rigorously defined, but appears to include the near-surface water-bearing units in the area of the Facility. The Bellflower Aquiclude is described as a heterogeneous mixture of continental, marine, and wind-blown sediments, mainly consisting of clays with sandy and gravely lenses (DWR, 1961). The base of the Bellflower Aquiclude is about 100 feet below sea level (about 150 feet bgs) in the Facility area. The Gage Aquifer is a water-bearing zone of fine to medium sand and gravel confined by the Bellflower Aquiclude. It is reported to be about 40 feet thick in the Facility area and is described as being of secondary importance as a water source (DWR, 1961).

The Lakewood Formation is underlain by the Lower Pleistocene San Pedro Formation, which continues to about 1,000 feet in depth in the Facility area. Major water-bearing zones within the San Pedro Formation are the Lynwood Aquifer and the Silverado Aquifer. These are reported to be at depths of about 300 and 500 feet, respectively, in the Facility area (DWR, 1961). The Silverado is an important groundwater source in the Coastal Plain and is considered a source of drinking water (DWR, 1961).

2.3 Local Geology And Hydrogeology

2.3.1 Local Geology

The drilling program conducted during the Phase II Soil Characterization provided extensive information with regard to the sediments within the upper 50 feet at the Facility. The drilling program included 36 hollow-stem auger borings and 174 direct-push probes, totaling approximately 4,700 linear feet. The drilling program for Areas 2 and 6 included nine hollow-stem auger borings and 43 direct-push borings totaling about 1,046 linear feet. Boring locations are shown on Figure 2 and boring logs are in Appendix A.

To allow detailed examination of the subsurface soils, 15 borings at representative locations within the Facility were continuously sampled from the surface to 50 feet bgs. One of these core borings is located in Area 2 and two are located in Area 6 (Figure 3). The detailed logs from these borings were used to construct the generalized cross-sections that are presented in Figures 4 through 6. Logs from the other, shallower borings are consistent with the soil units shown on the generalized cross-sections.

Several distinctive soil units were recognized in the subsurface and can be correlated between borings, as shown on Figures 4 through 6. For convenience in this text, the subsurface soil units are informally designated Units Q1 through Q4.

Unit Q1: Unit Q1 is a layer of silty clay and sandy clay encountered at the surface or just below the pavement or engineered fill soils over the entire Facility. This clay is typically dark brown to dark reddish brown in color and medium stiff to hard. It has moderate to high plasticity and is classified as CL or CH under the Unified Soil Classification System (USCS). Unit Q1 has a uniform thickness of about 5 feet along the west side of the Facility. It thickens to about 22 feet on the northeast corner of the Facility.

Unit Q2: Unit Q2 comprises a sequence of interbedded clayey silt, fine sandy silt, and fine silty sand with minor lenses of silty clay. The predominant USCS classifications are ML and SM. The Unit Q2 soils are brown, olive brown, and reddish brown in color and

are generally medium dense. Unit Q2 is about 17 to 20 feet thick and the base is about 22 to 25 feet bgs along the west side of the Facility. The unit thickens to about 30 feet at the east side of the Facility. The base of Unit Q2 also slopes eastward, and occurs at depths of 45 to 50 feet along the east side of the Facility.

Unit Q3: Unit Q3 is an interval of fine and very fine sand with only minor silt. Soils in this interval generally are classified as SP and SP-SM under the USCS. This soil unit includes distinctive beds containing abundant shell fragments. The sand is mainly light yellowish brown to light yellowish gray in color. It has generally massive structure, and commonly is described as being similar to beach sand. The sand is generally dense, but has essentially no cohesion.

Unit Q3 is more than 28 feet thick on the west side of the Facility, extending from about 22 feet bgs to below the 50-foot depth drilled at the northwest corner of the Facility. However, in the southern part of the Facility, Unit Q3 is interlayered with Unit Q4, a wedge of fine silty sand and fine sandy silt.

Unit Q4: Unit Q4 was observed in borings in the southwestern and central part of the Facility. It pinches out in the northwestern part of the area and is likely below the depth drilled on the east. Maximum thickness of this soil unit is about 17 feet, on the southwest. Unit Q4 mainly contains fine silty sand (SM) and clayey silt (ML) with thin interbeds of silty clay and fine sand. These soils are generally yellowish brown in color and are medium dense to dense.

2.3.2 Local Hydrogeology

The uppermost groundwater at the Facility appears to be under water-table conditions at depths of 60 to 70 feet. Regionally, this uppermost groundwater is probably considered part of the Semiperched Aquifer discussed previously and is separated from the deeper zones by the Bellflower Aquiclude (Kennedy/Jenks Consultants, 1997b).

Monitoring wells at the Facility are completed in two zones. Most of the wells are completed at or near the semi-perched aquifer, with screened intervals ranging from 60

to 90 feet bgs. Two deeper wells, WCC-1D and WCC-3D, are completed in a deeper zone with screened intervals from 120 to 140 feet bgs (Woodward-Clyde Consultants, 1990).

Complete records of water-level measurements are included in the quarterly Groundwater Monitoring Summary Reports (Kennedy/Jenks Consultants, January 1997b). The hydraulic gradient in the uppermost groundwater is generally toward the south-southeast, toward a local low in the area of wells WCC-7S and WCC-12S. The December 1996 groundwater gradient was 6.6×10^{-6} ft/ft (3.5 ft/mile) (Kennedy/Jenks Consultants, 1997b).

Groundwater conditions at the Facility are known from previous investigations and from the quarterly groundwater monitoring program (Kennedy/Jenks Consultants, 1997b). Groundwater samples from 15 observation wells at the Facility have been sampled and analyzed on a quarterly basis since 1992. There are no groundwater monitoring wells located within Areas 2 and 6. The drilling for the Phase II Soil Characterization was entirely in the unsaturated zone and did not provide additional information on groundwater.

3.0 PROGRAM DESIGN

This section provides the details of the Phase II Soil Characterization program design, the rationale for soil boring placement, and analytical testing on an area-by-area and building-by-building basis.

3.1 Program Design

The soil sampling program was designed to detect COPCs throughout the Facility and, as such, is conservative throughout (Table 1). Supplemental samples and/or analyses were added to the program, where appropriate, to provide high confidence that COPCs would be adequately characterized. As described in Section 2.1, Areas 2 and 6 contain portions that have been used for storage and portions that have been parking lots throughout the history of the Facility (Figure 2). Soil sampling locations were placed in known storage areas, previously identified potential areas of concern, on a sampling grid with appropriate spacing to cover open areas, and border areas of particular interest.

To best describe the subsurface soils, soil borings were nominally completed to three different depths: 10 feet, 25 feet, and 50 feet bgs. The 10-foot and 25-foot soil borings were completed by direct-push technology and the 50-foot soil borings were completed by hollow-stem auger. Further detail of the drilling methodologies is presented in Section 4.1. Detailed geologic boring logs were made of each soil boring and those from Areas 2 and 6 are presented in Appendix A. All Push borings were continuously cored in their upper 10 feet. In addition, a total of fifteen 50-foot soil borings were continuously cored to total depth to provide detailed soils data across the Facility.

Thirteen of the 15 50-foot core borings were drilled and completed at the beginning of the Facility-wide soils characterization prior to assigning the 2BB Study designation. This includes boring 2-11, 6-4, and 6-17 in Parcel B. Two 50-foot core borings were included near the end of the study to supplement the original 13 core borings and contain the 2BB Study designation (2BB-1-38 and 2BB-36-14).

Field activities were initiated with selection of sampling locations, geophysical screening for underground obstructions, and coring of concrete paving to access subsurface soils. Supplemental geophysical screening and concrete coring were conducted during the drilling program when new borehole locations were included in the investigation.

Soil samples were collected from 1 foot, 4 feet, and 10 feet bgs in all borings. Where possible, the uppermost soil sample was collected from 6 inches bgs; however, in many instances a 6-inch sample was impractical due to either the deteriorated asphalt at the surface, fill, base materials for concrete, railroad ballast, or other surface disturbance. Soil samples were collected at 5-foot intervals below 10 feet depth in borings drilled to 25 feet bgs and on 10-foot intervals below 10 feet depth in 50 foot boreholes.

The program had one to three drilling rigs collecting soil samples each day and was designed to process approximately 50 to 60 soil samples per day.

Blank samples and confirmation analyses were used for QA in the field program. Daily rinsate blanks were used to check decontamination of sampling equipment. Daily travel blanks accompanied all samples shipped to the stationary laboratory. Ten percent of the samples showing non-detect results for EPA Methods 8260 and 418.1 from the on-site mobile laboratories were sent to the stationary laboratory for confirmatory analysis. And, EPA Method 8260 mobile, on-site laboratory results exceeding 200 micrograms per kilogram (µg/kg) total VOCs were also sent to the stationary laboratory for confirmation analysis. Original laboratory reports are presented in Appendix B.

3.1.1 Sample Identification

Soil samples were identified with a unique boring number and depth using a predetermined nomenclature. For the Parcel B Soil Characterization, an example identification code is:

2BB-2-5-10

Where

2BB- study designation

2- Area designation

5- boring number in that Area

10 nominal sample depth.

3.2 Rationale for Sampling Locations and Analytical Testing

The rationale for the sampling locations and analytical testing for each area of potential concern is based on a combination of the following factors:

- The locations of known past processes that used specific chemicals.
- The location of specific equipment of concern, such as electrical transformers, clarifiers, ASTs, USTs, and others.
- Locations that border areas of known or suspected contamination.
- Areas having no prior history of concern to provide a comprehensive data base on Facility soil conditions for use in future site remediation, feasibility studies, groundwater investigations, and risk assessment.

Sampling locations are shown on Figure 2. The following discussion presents a summary of sampling locations and analytical testing for Areas 2 and 6. Table 1 presents the overall soil sampling analytical program for Areas 2 and 6.

3.2.1 Area 2

Area 2 occupies approximately 33 acres in the southwestern portion of the Facility (Figure 1). Topography in Area 2 is essentially flat with an elevation of approximately 50 feet above mean sea level (MSL). The potential areas of concern within Area 2 include the tool storage yard, the scrap storage yard, Buildings 54 through 56, the borders with an LADWP electrical substation, and the border with Montrose Chemical (Figure 2). Area 2 contains railroad tracks that separate the tool storage yard from the scrap storage yard, and railroad spurs that divide the tool storage yard into north-south

trending strips. Although most manufacturing operations at the Facility have been inactive for approximately four years, storage of master tools and scrap in Area 2 is still ongoing. A limited amount of assembly and activities related to warehousing currently continue and the railroad spurs are still active.

3.2.1.1 Tool Storage Yard

The Tool Storage Yard is used to store master tools used to make aircraft parts. The area that comprises the Tool Storage Yard is delineated by railroad tracks on the southern and eastern sides of Area 2 (Figure 2). Nine railroad spurs divide most of the tool yard into north-south trending strips, and are flanked on both sides by tools. Most of the tools are stored in wooden crates in a wide variety of sizes. Some of the larger tools are neither covered nor crated, and are lying on open ground. Most of the tools are composed of lead.

Three small buildings (numbers 54, 55, and 56) located near the gate to the yard are used for office space and storage of forklifts, service vehicles, and tools.

Seventeen soil borings (2BB-2-3 through 2BB-2-18) were drilled throughout the Tool Storage Yard. Sixteen were pushed to a depth of 10 feet bgs, and one (2BB-2-11B) was drilled to a depth of 50 feet bgs using a hollow-stem auger. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471) and semivolatile organic compounds (SVOCs) (8270).

3.2.1.2 Scrap Storage Yard

The Scrap Storage Yard comprises about 100,000 square feet in a long, narrow strip on the southern portion at Area 2 and eastern portion of Area 2, separated from the Tool Storage Yard by the railroad tracks (Figure 2). Unused miscellaneous equipment and material used to be stored in the area and included a chromic acid dip tank and wire mesh dip tank baskets, trash compactor, cyclone vents, refrigerators, a large quantity of steel beams and pipes, cement parking pylons, pumps, sheet metal, cinder blocks, tires, and railroad rails.

Nine soil borings (2BB-2-20 and 21 and 2BB-2-24 through 2BB-2-30) were drilled throughout the Scrap Storage Yard. These borings were pushed to a depth of 10 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471) and semivolatile organic compounds (SVOCs) (8270).

3.2.1.3 Buildings 54, 55, and 56

Three small buildings, Buildings 54, 55 and 56, are located near the gate to the yard on the northern border of Area 2 (Figure 2). These buildings are used for office space and storage of forklifts, service vehicles, and tools. A transformer substation containing PCBs is located adjacent to Building 54. Staining around and on the transformer indicated that oil has leaked from the transformer.

Two soil borings, 2BB-2-1 and 2BB-2-2, were drilled in this location. Both were pushed to a depth of 10 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471), and PCBs (8080).

3.2.1.4 Area Borders with LADWP Electrical Substation

A LADWP electrical substation is located adjacent to the southeastern corner of Area 2 and borders the Scrap Storage Area (Figure 2). The electrical substation contains transformers that may contain PCBs.

Four borings (2BB-2-22, -23, -31, and -32) were drilled along the borders with the LADWP electrical substation. All borings were pushed to 25 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471), semivolatile organic compounds (SVOCs) (8270) and PCBs (8080).

3.2.1.5 Area Border with Montrose Chemical

The Montrose Chemical facility is located adjacent to the eastern boundary of Area 2 and borders the eastern end of the Tool Storage Yard (Figure 2). Montrose is a known source of contamination to soil and groundwater and is currently on the National Priority List (NPL) due to the release of DDT and other chemicals to the environment.

Three borings (2BB-2-33 through 2BB-2-35) were drilled along the border with the Montrose Chemical Facility. The borings were pushed to 25 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471), semivolatile organic compounds (SVOCs) (8270) and pesticides (8080).

3.2.2 Area 6

Area 6 occupies approximately 19 acres in the western portion of the Facility immediately north of Area 2 (Figure 1). Topography in Area 6 is essentially flat with an elevation of approximately 50 feet above mean sea level (MSL). Area 6 is comprised of a parking lot with active railroad tracks along the southwestern and western border. Area 6 is divided into two potential areas of concern: Area Border with ILM and the Parking Lot (Figure 2).

3.2.2.1 Area Border with International Light Metals

Area 6 borders ILM to the west, a RCRA site with known soil and groundwater contamination (Geraghty & Miller, 1996). Railroad tracks are located along the border to the west (Figure 2).

Six borings, 2BB-6-1 through 2BB-6-6, were drilled along the border with the ILM. The borings were drilled to 50 feet bgs using a hollow-stem auger. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs

(8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471), and PCBs (8080). Supplemental continuous core boring, 6-4, was drilled at allow detailed examination of the subsurface soils. Soil samples were not collected for laboratory analysis from this boring.

3.2.2.2 Parking Lot

This area comprises most of Area 6 and has historically been primarily a parking lot (Figure 2).

Ten borings were drilled throughout the area on approximately 200 to 300 foot spacings. Nine of the borings (2BB-6-8 through 2BB-6-16) were pushed to 25 feet bgs. One boring (2BB-6-17) was drilled to 50 feet bgs using a hollow-stem auger. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471), and PCBs (8080).

4.0 SOIL SAMPLING AND ANALYTICAL METHODS

This section provides the details of the borehole drilling and sampling methods, sample handling and the sample analytical program including QA/QC. Two hundred twenty-nine samples were collected in the field for laboratory analysis for the Phase II Soil Characterization of Parcel B. The field work was conducted during the period from 1 April through 7 May 1997. Areas 2 and 6 soil sampling locations are illustrated on Figure 2.

To accomplish the Phase II Soil Characterization objectives and document proper protocol for the work, an agency-approved Field Sampling Plan (FSP) was prepared and reviewed with field staff prior to initiating field work. Following the FSP, drilling and sampling methods were conducted in accordance with Kennedy/Jenks Consultants' Standard Operating Guides included in Appendix C. The Guides incorporate industry professional standards for routine sampling, and are designed to meet general regulatory agency requirements. A Site Health and Safety Plan was also prepared and reviewed with field staff prior to conducting field activities. Field safety meetings were conducted with Kennedy/Jenks Consultants and subcontractor staff at the beginning of each day to review physical and chemical hazards and emergency procedures related to the work.

4.1 Drilling and Soil Sampling

Field activities were initiated with selection of sampling locations, geophysical screening for underground obstructions, and coring of concrete paving to access subsurface soils. Supplemental geophysical screening and concrete coring were conducted during the drilling program when new borehole locations were included in the investigation.

Sampling was accomplished using direct-push, limited access direct-push, and hollow-stem auger drilling methods. Direct-push drilling was used on all 10-foot and 25-foot soil borings. The push technology uses a truck-mounted or portable hydraulically driven sampler or core barrel that allows penetration and standard sampling without the generation of drill cuttings. The sampler for the push tool was fitted with 2-foot-long, 1-

inch-diameter Tenite sleeves. Minimal cuttings were generated using this equipment. The boreholes were backfilled with a cement-bentonite grout and the surface capped with original material (e.g., concrete, asphalt or native soil). A total of 43 borings throughout Areas 2 and 6 were drilled and sampled using this equipment.

A CME-85 hollow-stem auger drilling rig was used to drill and sample the 50-foot soil borings. Sampling was conducted using a standard split-spoon sampler fitted with 2 1/2-inch-diameter, 6-inch-long brass sleeves. Cuttings from these borings were drummed and the holes were backfilled with a cement-bentonite grout and the surface capped with original material. A total of nine borings throughout Parcel B were drilled and sampled using this technique.

At each of the soil sampling locations, the soil types encountered were logged using the standard Unified Soil Classification System (USCS) and Munsell Color Chart notation. Boring logs are included in Appendix A.

Soil cuttings from hollow-stem auger boreholes were labeled, inventoried, and stored in drums at the Facility for later disposal.

4.2 Sample Handling

Soil samples were collected in Tenite, stainless steel, or brass sleeves and then covered with Teflon™ sheets, capped, labeled, and temporarily stored in ice-cooled containers. For each sampling interval, two or three sleeves (depending on length) were collected for laboratory analysis, one for each of the two mobile laboratories on location and one for the off-site laboratory. Samples were identified with the boring number and depth using the predetermined nomenclature presented in Section 3.1.1.

Samples were immediately labeled, placed in ice-cooled, insulated containers upon collection and transported to the on-site mobile laboratories at the completion of a boring, or transferred to the off-site laboratory by courier at the end of each day. Sample custody was maintained by the field sampler or field supervisor until transferred to one of the laboratories. Sample custody was documented on standard chain-of-custody

forms. Chain-of-custody forms are included with the laboratory reports in Appendix B. (Please refer to Appendix B of the Parcel A, Phase II Soil Characterization Report, transmitted in July 1997, for laboratory analytical reports.)

4.3 Sample Analytical Program

Analytical work was conducted by California-certified laboratories using standard EPA test methods and appropriate state-required modifications. Soil samples were analyzed daily in two on-site mobile laboratories. One lab was equipped with two gas chromatography/mass spectrometry (GC/MS) systems with autosamplers capable of performing EPA Method 8260 for VOCs, while a second on-site mobile laboratory analyzed samples by EPA Method 418.1 and EPA Modified Method 8015. Soil samples were also taken to an off-site stationary laboratory daily by courier for analyses of VOCs and other COPCs, such as semi-volatile organic compounds (SVOCs), metals including hexavalent chromium, PCBs, and others. The off-site stationary laboratory also performed QA/QC checks of the on-site mobile laboratory detections.

Analytical methods were selected for COPCs based on the Phase I Preliminary environmental site assessments findings (Kennedy/Jenks Consultants, 1996, 1997a). Analytical methods selected and the number of samples analyzed for each boring are detailed in Table 1 and summarized below:

- All samples, except as noted, were analyzed for VOCs, including gasoline by an on-site mobile laboratory by EPA Method 8260. A limited number of samples collected by the limited access direct-push method were analyzed for VOCs and TRPH at the off-site stationary laboratory by EPA Methods 8010/8020 and 418.1. These samples were collected near the end of the field program after the on-site mobile laboratories had left the Facility.

- All samples were analyzed for petroleum hydrocarbons by an on-site mobile laboratory by EPA Method 418.1 for TRPH. TRPH detections were also analyzed in the mobile laboratory for hydrocarbon speciation by EPA Method 8015 modified.

- Samples collected at locations with potential metals concerns were analyzed by an off-site stationary laboratory by EPA Methods 6010, 7196, and 7471.

- Samples collected at locations with potential PCB concerns were analyzed by an off-site stationary laboratory by EPA Method 8080.

- Samples collected at locations with potential pesticide concerns were analyzed by an off-site stationary laboratory by EPA Method 8080.

- Ten percent of the on-site mobile laboratory non-detect results by EPA Method 8260 for VOCs were also analyzed by the off-site stationary laboratory as a QA/QC check.

- Ten percent of the mobile laboratory non-detect results by EPA Method 418.1 for TRPH were also analyzed by the off-site stationary laboratory as a QA/QC check.

- As an additional QA/QC check, all samples from four soil borings, 2BB-6-1 through 2BB-6-4, were analyzed for VOCs by EPA Method 8260 and TRPH by EPA Method 418.1 in both the on-site mobile and off-site stationary laboratories.

- Samples with Total VOCs greater than 200 μg/kg detected by EPA Method 8260 in the on-site mobile laboratory were also analyzed for VOCs at the off-site stationary laboratory for confirmation.

5.0 INVESTIGATION RESULTS

This section presents the results of the Phase II Soil Characterization of Parcel B. The data are discussed by areas in the same order presented in Section 3.0. Each discussion begins with a brief summary of the specific borings associated with each area and the analytical tests performed.

The sections are sub-divided into organic and inorganic data for each location investigated. Organics include the results of analyses for VOCs, petroleum hydrocarbons, SVOCs, PCBs, and pesticides, while the inorganic section covers the results of analyses for Title 22 metals. Figures 7A through 7G and 8A through 8G present data for trichloroethene (TCE), and tetrachloroethene (PCE), respectively and Figures 9A-G, and 10A-G present data for total chromium and lead, respectively. Each series of figures includes seven groups, A through G, that show constituent concentrations detected at the following respective depths: 1 foot, 4 feet, 10 feet, 15 to 20 feet, 25 to 30 feet, 40 feet, and 50 feet bgs. These compounds and metals were selected as representing the most important COPCs detected in Areas 2 and 6 based on the known processes that operated in the area.

Specific Facility-wide ranges and average values for metals are presented in Table 2. References cited for the common range of background metals concentrations in soil include:

- Lindsay, Willard L., 1979, "Chemical Equilibria in Soils," John L. Willey & Sons, New York, New York.

- Shacklette, H.T., and Boerngen, J.G., 1984, "Element Concentrations in Soils and Other Surficial Materials in the Conterminous United States," USGS Professional Paper 1270, U.S. Government Printing Office, Washington, D.C.

Table 3 provides a summary of the VOC results from analyzes performed by the on-site mobile laboratory. Table 4 provides TRPH and TPH results from the mobile laboratory. Table 5 presents the results of the SVOC analyses. Overall, as shown in Table 6, there

were seven background metals detected in all soil samples analyzed: 1) barium, 2) total chromium, 3) cobalt, 4) copper, 5) nickel, 6) vanadium, and 7) zinc.

5.1 Area 2

Thirty-five soil borings were drilled and 128 soil samples were analyzed at five potential areas of concern in Area 2 (Figure 2). The results are detailed in the following subsections. Distribution of chemical detections by depth for TCE, PCE, total chromium, and lead are presented in Figures 7 through 10.

5.1.1 Tool Storage Yard

Seventeen soil borings were drilled throughout the Tool Storage Yard. Sixteen were pushed to a depth of 10 feet bgs, and one boring (2BB-2-11B) was drilled to a depth of 50 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471) and semivolatile organic compounds (SVOCs) (8270).

5.1.1.1 Organics

No VOCs exceeded the detection limit of 5 μg/kg in the samples from the Tool Storage Yard (Table 3).

Petroleum hydrocarbons were detected in 25 soil samples collected from 12 borings. In most borings TRPH (418.1) was detected at concentrations less than 270 mg/kg (Table 4). TRPH was detected at 3,200 mg/kg in the 1.5-foot bgs sample from boring 2BB-2-11B and at 6,000 mg/kg in the 4-foot bgs sample from boring 2BB-2-15. Petroleum hydrocarbons were not detected in the deeper samples from these borings. Motor oil-like hydrocarbons (8015M) were detected in eight of 25 samples that contained TRPH (Table 4). Seven samples contained motor oil-like hydrocarbons at concentrations ranging from 11 to 710 mg/kg. The 4-foot bgs sample from boring 2BB-2-17 contained motor oil-like hydrocarbons at 3,000 mg/kg.

Bis(2-ethylhexyl)-phthalate and phenol were the only SVOCs detected in samples from the Tool Storage Yard Area (Table 5). Bis(2-ethylhexyl)-phthalate was detected at concentrations ranging from 120 µg/kg to 270 µg/kg in seven samples from borings 2BB-2-6, -7, -10, -11B, -14, and -16. Phenol was detected at 170 µg/kg in the 1-foot bgs sample from boring 2BB-2-16.

5.1.1.2 Inorganics

The metals analyses were generally typical of the soils in this area. Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values (Tables 2 and 6). Lead was reported at a concentration of 7.0 mg/kg in the 2-foot bgs sample from boring 2BB-2-11B and 23 mg/kg in the 1-foot sample from boring 2BB-2-16. These lead concentrations are well below the TTLC of 1,000 mg/kg and less than ten times the 5.0 mg/l STLC (Table 2).

5.1.2 Scrap Storage Yard

Nine soil borings were drilled throughout the Scrap Storage Yard. These were pushed to a depth of 10 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471) and semivolatile organic compounds (SVOCs) (8270).

5.1.2.1 Organics

The only VOC detected in the Scrap Storage Yard area was PCE, which was detected at 7.8 µg/kg and 5.2 µg/kg in the 1-foot bgs and 4-foot bgs samples respectively from boring 2BB-2-21 (Table 3).

Petroleum hydrocarbons at low concentrations were detected in this area. TRPH (418.1) was detected in eleven soil samples collected from five borings at

concentrations ranging from 16 mg/kg to 450 mg/kg (Table 4). Five samples contained motor oil-like hydrocarbons (8015M) at concentrations ranging from 37 mg/kg to 280 mg/kg.

Several SVOCs (Table 5) that are coal-tar derivatives were detected at low concentrations in the 4-foot bgs sample from boring 2BB-2-21. They include Benz(a)anthracene (170 µg/kg), Chrysene (150 µg/kg), Fluoranthene (470 µg/kg), Phenanthrene (320 µg/kg), and Pyrene (300 µg/kg).

Bis(2-ethylhexyl)-phthalate was the only SVOC detected in samples from more than one boring. Bis(2-ethylhexyl)-phthalate was detected at concentrations ranging from 110 µg/kg to 230 µg/kg in four samples from borings 2BB-2-21, -27, and -30.

5.1.2.2 Inorganics

The metals analyses were generally typical of the soils in this area. Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values (Tables 2 and 6). Lead was reported at concentrations of 8.6 mg/kg and 2.7 mg/kg in the 1-foot bgs and 4-foot bgs samples respectively from boring 2BB-2-28. These lead concentrations are well below the TTLC of 1,000 mg/kg and less than ten times the 5.0 mg/l STLC (Table 2).

5.1.3 Buildings 54, 55, and 56

Two soil borings, 2BB 2-1 and 2BB-2-2, were drilled in this location. Both were pushed to a depth of 10 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1. Samples from boring 2BB-2-1 were analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), and PCBs (8080). Samples from boring 2BB-2-2 were analyzed for PCBs only.

5.1.3.1 Organics

No VOCs exceeded the detection limit of 5 μg/kg in the samples from this area (Table 3).

Petroleum hydrocarbons were detected in all three samples from boring 2-1 (Table 4). TRPH (418.1) was detected at concentrations ranging from 61 mg/kg to 150 mg/kg. Motor oil-like hydrocarbons (8015M) were detected in the 4-foot bgs sample from boring 2BB-2-1 at 12 mg/kg.

No PCBs were detected in the soil samples collected from this area (Table 7).

5.1.4 Area Borders with LADWP Electrical Substation

Five of the borings drilled in the Scrap Storage Yard were located along the borders with the LADWP electrical substation. All four of the borings (2BB-2-22, -23, -31, and -32) were pushed to 25 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471), semivolatile organic compounds (SVOCs) (8270), and PCBs (8080).

5.1.4.1 Organics

No VOCs exceeded the detection limit of 5 μg/kg in the samples from this area (Table 3).

Petroleum hydrocarbons were detected in the 1-foot bgs and 4-foot bgs samples from borings 2BB-2-23, and -24, the 1-foot bgs samples from 2BB-2-31 and -32, and the 25-foot bgs sample collected from boring 2BB-2-32 (Table 4). TRPH (418.1) was detected at concentrations ranging from 11 mg/kg to 360 mg/kg. Motor oil-like hydrocarbons (8015M) were detected in the 4-foot bgs samples from 2BB-2-24 and -23 at 66 mg/kg and 98 mg/kg, respectively.

Bis(2-ethylhexyl)-phthalate was the only SVOC detected in samples from this area (Table 5). It was detected at 3,600 μg/kg and 4,400 μg/kg in the 15-foot and 25-foot bgs samples collected from boring 2BB-2-31, respectively.

No PCBs were detected in the soil samples collected from this area (Table 7).

5.1.4.2 Inorganics

The metals analyses were generally typical of the soils in this area. Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values (Tables 2 and 6).

5.1.5 Area Border with Montrose Chemical

Three of the borings drilled in the Scrap Storage Yard were located along the border with the Montrose Chemical Facility. The borings were pushed to 25 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471), semivolatile organic compounds (SVOCs) (8270) and pesticides (8080).

5.1.5.1 Organics

PCE, TCE, and chloroform exceeded the detection limit of 5 μg/kg in the samples from this area (Table 3). PCE and TCE were both detected in only the 15-foot bgs sample from boring 2BB-2-34 at 6.7 μg/kg and 5.1 μg/kg, respectively, Chloroform was detected in the 15-foot bgs samples from borings 2BB-2-34 and -35 at 6.3 μg/kg and 17 μg/kg, respectively.

Petroleum hydrocarbons were detected in the 1-foot bgs sample from boring 2BB-2-34 and the 1-foot, 20-foot, and 25-foot bgs samples from boring 2BB-2-35 (Table 4). TRPH (418.1) was detected at concentrations ranging from 12 mg/kg to 56 mg/kg.

Bis(2-ethylhexyl)-phthalate was the only SVOC detected in samples from this area (Table 5). It was detected at concentrations ranging from 120 µg/kg to 680 µg/kg in five samples.

Pesticides were not detected in any samples collected from this area (Table 8).

5.1.5.2 Inorganics

The metals analyses were generally typical of the soils in this area. Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values (Tables 2 and 6).

5.2 Area 6

A total of 17 soil borings were drilled and 101 soil samples were analyzed in two potential areas of concern in Area 6 (Figure 2). The results are detailed in the following subsections. Distribution of chemical detections by depth for TCE, PCE, total chromium, and lead are presented in Figures 7 through 10.

5.2.1 Area Border with International Light Metals

Six borings, 2BB-6-1 through 2BB-6-6, were drilled along the border with the ILM. The borings were drilled to 50 feet bgs. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471), and PCBs (8080).

5.2.1.1 Organics

TCE was the only VOC that exceeded the detection limit of 5 µg/kg in the samples from this Area (Table 3). TCE was detected in 25 samples collected from all 6 borings drilled

in this area at concentrations ranging from 5.9 μg/kg to 52 μg/kg. Depending on the boring, it was detected at depths ranging from 1 to 55 feet bgs.

Petroleum hydrocarbons were detected in the 2-foot bgs and 4.5 foot bgs samples from boring 2BB-6-5, and the 1.5 foot bgs sample from boring 2BB-6-6 (Table 4). TRPH (418.1) was detected at concentrations ranging from 23 mg/kg to 41 mg/kg.

No PCBs were detected in the soil samples collected from this area (Table 7).

5.2.1.2 Inorganics

The metals analyses were generally typical of the soils in this area. Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values (Tables 2 and 6).

5.2.2 Parking Lot

Ten borings were drilled throughout the area on approximately 200 to 300 foot spacings (Figure 2). Nine of the borings, 2BB-6-8 through 2BB-6-16, were pushed to 25 feet bgs. One boring (2BB-6-17) was drilled to 50 feet bgs using a hollow-stem auger. Soil samples were collected according to the depth scheme presented in Table 1 and analyzed for VOCs (8260 or 8010/8020), petroleum hydrocarbons (418.1 and/or 8015M), Title 22 metals (6010, 7196, and 7471), and PCBs (8080).

5.2.2.1 Organics

No VOCs exceeded the detection limit of 5 μg/kg in the samples from this area (Table 3).

Petroleum hydrocarbons were detected in 17 soil samples collected from eight borings. TRPH (418.1) was detected at concentrations ranging from 16 mg/kg to 200 mg/kg (Table 4). Six samples contained motor oil-like hydrocarbons (8015M) at concentrations ranging from 34 mg/kg to 110 mg/kg.

No PCBs were detected in the soil samples collected from this area (Table 7).

5.2.2.2 Inorganics

The metals analyses were generally typical of the soils in this area. Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values (Tables 2 and 6).

5.3 Quality Assurance Results

This section includes the results of the field quality assurance (QA) sample analysis, travel blanks and equipment rinsate blanks, VOC and TRPH QA results, and the QA check results on mobile laboratory total VOC concentrations greater than 200 µg/kg. In addition, the RWQCB performed audits of the mobile and stationary laboratories.

5.3.1 Field QA

Daily travel blanks were analyzed for VOCs (8260) to monitor the possibility of outside contamination of soil samples during transport to the stationary laboratory. Travel blank analytical testing resulted in no detections, indicating the samples were not impacted during transport (Appendix B).

Daily equipment rinsate blanks were analyzed to monitor the potential cross-contamination of soil samples by the sampling equipment. All laboratory analytical results were non-detect, indicating proper cleaning of field equipment between samples (Appendix B).

5.3.2 Laboratory QA

5.3.2.1 QA Analysis for VOCs

As a QA check on the results of the on-site mobile laboratory, 10 percent of non-detect EPA Method 8260 results were also analyzed at the off-site stationary laboratory. In addition, samples from borings 2BB-6-1 through 2BB-6-4 were analyzed for VOCs at both the on-site mobile laboratory and the off-site stationary laboratory. Comparison of the data is presented in Table 9.

The results of the 10% non-detected QA analysis by the off-site stationary laboratory agreed with the results of the on-site mobile laboratory. The results of the analyses of soil samples from borings 2BB-6-1 through 2BB-6-4 differed between the on-site mobile laboratory and the off-site stationary laboratory. The on-site mobile laboratory detected TCE in 17 of the 26 soil samples at concentrations at or below 52 μg/kg, while TCE was detected in only two of the 26 soil samples by the off-site stationary laboratory. TCE was detected by the off-site stationary laboratory in 2BB-6-3-1 at 15 μg/kg and by the on-site mobile laboratory at 23 μg/kg. The other TCE detection (2BB-6-2-1) by the off-site stationary laboratory was in a sample in which TCE was not detected by the on-site mobile laboratory. In addition, Toluene was detected in two soil samples in concentrations at or below 3.3 μg/kg, and PCE in one sample at 16 μg/kg by the off-site stationary laboratory only.

All of these VOC concentrations are low. The highest concentration detected was 52 μg/kg and the average was 18 μg/kg. This variability is not unreasonable when comparing the results of analyses of separate soil sample sleeves from the same sampling location. Due to the heterogeneous nature of the sediments, chemical concentrations could vary widely, even within the same 6-inch sample sleeve. The QA data show acceptable correlation between the analyses and substantiate the on-site mobile laboratory results.

5.3.2.2 QA Analysis for TRPH

As a QA check on the results of the on-site mobile laboratory, 10 percent of non-detect EPA Method 418.1 results were analyzed at the off-site stationary laboratory. In addition, samples from borings 2BB-6-1 through 2BB-6-4 were analyzed for TRPH at

both the on-site mobile laboratory and the off-site stationary laboratory. Comparison of the data is presented in Table 10.

The off site stationary laboratory results showed detections of TRPH by EPA Method 418.1 in 21 out of 41 samples (~50 percent). However, the on-site mobile laboratory used a screening detection limit of 20 mg/kg during the beginning of the program and then, on request by Kennedy/Jenks Consultants, changed to a detection limit of 10 mg/kg. The off-site stationary laboratory used a detection limit of 8 mg/kg. One of the 21 sample detections (2BB-2-22-25) from the off-site stationary laboratory is below the comparable detection limit of the on-site mobile laboratory, and three samples are right on the 10 mg/kg detection limit. This leaves 17 out of 41 samples (41 percent) that had TRPH detections by the off-site stationary laboratory, where the on-site mobile laboratory had non-detect. All of these samples had detections less than 73 mg/kg TRPH. This variability is not unreasonable when comparing the results of analyses of separate soil sample sleeves from the same sampling location. Due to the heterogeneous nature of the sediments, chemical concentrations could vary widely, even within the same 6-inch sample sleeve.

Because of the difficulty inherent in analyzing soil samples, the QA data are interpreted to show acceptable correlation between the analyses and substantiate the on-site mobile laboratory results.

5.3.3 QA Analysis of Total VOC>200 μg/kg

The purpose of the QA analysis of total VOC>200 μg/kg was to confirm the on-site mobile laboratory screening results. However, since none of the results for total VOCs were greater than 200 μg/kg, no samples from Areas 2 and 6 were tested for VOCs by the off-site stationary laboratory.

6.0 CONCLUSIONS

The Phase II Soil Characterization of Parcel B was completed according to the Field Sampling Plan (FSP) that was developed from the Phase I environmental site assessments of the Facility. The data generated during this program will provide support for future site remediation, feasibility studies, groundwater investigations, and risk assessment, if necessary.

Parcel B is comprised of Areas 2 and 6, which were divided into areas of potential concern. Each of the areas of potential concern were investigated individually. Area 2 was divided into five areas of potential concern:

- Tool Storage Yard
- Scrap Storage Yard
- Buildings 54, 55, and 56
- Area Borders with LADWP Electrical Substation
- Area Border with Montrose Chemical

None of the areas of potential concern investigated in Area 2 were found to contain COPCs at levels such that they were designated areas of actual concern.

Area 6 was divided into two areas of potential concern:

- Area Border with International Light Metals
- Parking Lot

Neither of the areas of potential concern investigated in Area 6 were found to contain COPCs at levels such that they were designated areas of actual concern.

This section of the report begins with a brief description of the field program (Section 6.1), followed by a summary of subsurface soil conditions at the Facility (Section 6.2). Findings regarding each of the five areas of potential concern in Area 2 are summarized

in Section 6.3. Findings regarding the two areas of potential concern in Area 6 are summarized in Section 6.4.

6.1 Field Program

The field program included drilling and geologic logging of 52 soil borings and collecting 229 soil samples in Areas 2 and 6. The soil samples were analyzed for the COPCs that could be present in each area of potential concern. The samples were analyzed for VOCs and petroleum hydrocarbons by an on-site state-certified laboratory. Selected samples also were analyzed at an off-site state-certified stationary laboratory for one or more additional parameters, including, but not limited to, SVOCs, PCBs, and metals.

The QA program included blank samples and confirmation analyses of selected soil samples. Analyses of the blank samples showed no indication that samples collected were inadvertently contaminated. Confirmation analyses at a stationary laboratory supported the mobile laboratory analyses. In addition, both the mobile and stationary laboratories were audited by the RWQCB for compliance with analysis procedure methods.

6.2 Subsurface Soils

Extensive information regarding the soils within 50 feet bgs at the Facility was developed from the drilling and geologic logging in the Phase II Soil Characterization. Four distinct subsurface units were identified. Three of these were correlated over the entire Facility, while the fourth pinches out on the northwest and dips below the depth drilled on the eastern portion of the property. The uppermost soils at the Facility consist predominantly of clay and silt. These fine-grained soils are present to about 22 feet bgs on the west and thicken to about 45 feet bgs on the east. Soils below these depths are predominantly sand and silty sand to the 50-foot maximum depth drilled.

6.3 Summary of Findings - Area 2

Analysis of the results of the Phase II Soil Characterization indicated there are no areas of concern in Area 2. Area 2 was divided into five areas of potential concern:

- Tool Storage Yard
- Scrap Storage Yard
- Buildings 54, 55, and 56
- Area Borders with LADWP Electrical Substation
- Area Border with Montrose Chemical.

None of these five areas of potential concern investigated were found to contain COPCs at levels such that they were designated areas of concern. The findings for each of these potential areas of concern are summarized below.

6.3.1 Tool Storage Yard

The Tool Storage Yard is used to store master tools used to make aircraft parts. Most of the tools are composed of lead. However, this area did not contain lead at concentrations high enough to be designated as an area of concern.

No VOCs were detected in this area.

Petroleum hydrocarbons were detected at low concentrations in 25 of 53 soil samples. TRPH (418.1) was detected at concentrations less than 270 mg/kg in 23 of the samples. TRPH (418.1) was detected at 1.5 feet bgs in boring 2-11B at 3,200 mg/kg and at 4 feet bgs in boring 2-15 at 6,000 mg/kg, but was not detected in the deeper samples from these same borings. Motor oil-like hydrocarbons (8015M) were detected in seven samples at concentrations less than 710 mg/kg, and at 4 feet bgs in boring 2-17 at 3,000 mg/kg.

The only SVOCs detected were bis(2-ethylhexyl)-phthalate and phenol. Bis(2-ethylhexyl)-phthalate was detected at concentrations ranging from 120 µg/kg to

270 μg/kg in seven of 53 samples at depths ranging from 1 foot bgs to 10 feet bgs, and phenol was detected at 170 μg/kg in the 1-foot bgs sample from boring 2-16.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values. Lead was detected in two borings, 2-16 and 2-11B, at 1 foot bgs to 2 feet bgs, respectively, at 7.0 mg/kg and 23 μg/kg, which is well below the TTLC of 1,000 mg/kg and less than ten times the STLC.

6.3.2 Scrap Storage Yard

The Scrap Storage Yard is used to store miscellaneous equipment and material, including a waste oil pump and roll-off bins that were used to collect and transport waste oil. However, this area did not contain petroleum hydrocarbons at concentrations high enough to be designated as an area of concern.

PCE was detected at boring 2-21 at a concentration of 7.8 μg/kg and 5.2 μg/kg in the 1-foot and 4-feet bgs samples, respectively.

Petroleum hydrocarbons, including TRPH (418.1) and motor oil-like hydrocarbons (8015M), were detected at concentrations ranging from 16 mg/kg to 450 mg/kg in 11 of 21 samples at shallow depths of 1 foot to 4 feet bgs.

SVOCs were detected in four of 27 samples at concentrations less than 230 μg/kg. Certain SVOCs — benz(a)anthracene, chrysene, fluoranthene, phenanthrene, and pyrene — were detected in the 4-foot bgs sample from boring 2BB-2-21 at concentrations ranging from 150 mg/kg to 470 mg/kg. Bis(2-ethylhexyl)-phthalate was detected at concentrations ranging from 110 μg/kg to 230 μg/kg in four samples from borings 2BB-2-21, -27, and -30 at depths to 10 feet bgs.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values. Lead was reported in boring 2-28 at 8.6 mg/kg and 2.7 mg/kg in the 1-foot and 4-feet bgs samples. These lead

concentrations are well below the TTLC of 1,000 mg/kg and less than ten times the STLC.

6.3.3 Buildings 54, 55, and 56

Buildings 54, 55 and 56 are used for office space and storage of forklifts, service vehicles, and tools. A transformer substation containing PCBs is located adjacent to Building 54. Staining around and on the transformer indicated that oil has leaked from the transformer. However, no PCBs were detected in this area.

No VOCs were detected in this area.

Petroleum hydrocarbons, including TRPH (418.1) and motor oil-like hydrocarbons (8015M), were detected in the samples from boring 2BB-2-1 at concentrations ranging from 12 mg/kg to 150 mg/kg at depths ranging from 1 foot to 10 feet bgs.

No PCBs were detected in the soil samples collected from this area.

6.3.4 Area Borders with LADWP Electrical Substation

A LADWP electrical substation is located adjacent to the southeastern corner of Area 2. The electrical substation contains transformers that may contain PCBs. However, no PCBs were detected in the samples tested for the 2BB investigation of Parcel B of the BRC C-6 Facility.

No VOCs were detected in this area.

Petroleum hydrocarbons, including TRPH (418.1) and motor oil-like hydrocarbons (8015M), were detected in seven of 24 samples at concentrations ranging from 11 mg/kg to 360 mg/kg. Six of these detections were at 1 foot or 4 feet bgs, and one detection (11 mg/kg) was at 25 feet bgs.

The only SVOC detected in this area was bis(2-ethylhexyl)-phthalate, which was detected at 3,600 μg/kg and 4,400 μg/kg in the 15-foot and 25-foot bgs samples collected from boring 2-31, respectively.

No PCBs were detected in this area.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values.

6.3.5 Area Border with Montrose Chemical

The Montrose Chemical facility is located adjacent to the eastern boundary of Area 2. Montrose is a known source of contamination to soil and groundwater and is currently on the NPL due to the release of DDT and other chemicals to the environment. However, no DDT or other pesticides were detected in the samples tested for the 2BB investigation of Parcel B of the BRC C-6 Facility.

PCE and TCE were both detected in only one soil sample, 2-34 at a depth of 15 feet bgs and at a concentration of 6.7 μg/kg and 5.1 μg/kg, respectively. Chloroform was detected in the 15-foot bgs samples from borings 2-34 and 2-35 at 6.3 μg/kg and 17 μg/kg, respectively.

Petroleum hydrocarbons as TRPH (418.1) were detected in four of 18 samples at concentrations ranging from 12 mg/kg to 56 mg/kg. The highest concentration (56 mg/kg) was detected at 1 foot bgs at 2-35, while concentrations of 12 mg/kg and 13 mg/kg were detected in boring 2-35 at 20 feet and 25 feet bgs, respectively.

The only SVOC detected in this area was bis(2-ethylhexyl)-phthalate, which was detected at concentrations ranging from 120 μg/kg to 680 μg/kg in borings 2-33 and 2-34 at depths ranging from 1 foot bgs to 20 feet bgs.

No pesticides were detected in this area.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values.

6.4 Summary of Findings - Area 6

Analysis of the results of the Phase II Soil Characterization indicated that there are no areas of concern in Area 6. Area 6 was divided into two areas of potential concern:

- Area Border with Montrose Chemical
- Parking Lot

Neither of these two areas of potential concern investigated in Area 6 were found to contain COPCs at levels such that they were designated areas of concern. The findings for each of these areas of potential concern are summarized below.

6.4.1 Area Border with International Light Metals

ILM is located adjacent to the western boundary of Area 6. The ILM site is a known source of soil and groundwater contamination.

TCE was detected in 25 of 40 samples collected from all 6 borings drilled in this area at concentrations ranging from 5.9 μg/kg to 52 μg/kg. Depending on the boring, it was detected at depths ranging from 1 to 55 feet bgs.

Petroleum hydrocarbons as TRPH (418.1) were detected in three samples, two from boring 6-5 and one from boring 6-6, at concentrations ranging from 23 mg/kg to 41 mg/kg and at shallow depths ranging from 1.5 feet to 4.5 feet bgs.

No PCBs were detected in this area.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values.

6.4.2 Parking Lot

This area comprises most of Area 6 and has historically been primarily a parking lot.

No VOCs were detected in this area.

Petroleum hydrocarbons, including TRPH (418.1) and motor oil-like hydrocarbons (8015M), were detected in 17 of 61 samples at concentrations ranging from 16 mg/kg to 200 mg/kg and at depths ranging from 1 foot and 10 feet bgs.

No PCBs were detected in this area.

Barium, chromium, cobalt, copper, nickel, vanadium, and zinc were detected at concentrations that appear typical of background values.

7.0 REFERENCE LIST

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Tables

TABLE 1
SOIL SAMPLING ANALYTICAL PROGRAM FOR AREAS 2 AND 6

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Location	Sample I D	# of subsurface samples	8260 or 8010/8020	418.1	8015M[1]	Title 22 Metals	Cr (VI)[2]	8270	8080 (PCBs)	8080 (Pesticides)
2	Building 54/Transformer	2BB-2-1 -(1,4,10)	3	3	3	3				3	
2	Building 54/Transformer	2BB-2-2 -(1,4,10)	3							3	
2	Tool Storage Yard	2BB-2-3 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-4 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-5 -(4,10)	2	2	2	2	2	2	2		
2	Tool Storage Yard	2BB-2-6 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-7 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-8 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-9 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-10 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-11A -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-11B -(2,5,10,20,30,40,50)	7	7	7	7	7	6	7		
2	Tool Storage Yard	2BB-2-12 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-13 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-14 -(4,10)	2	2	2	2	2	2	2		
2	Tool Storage Yard	2BB-2-15 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-16 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-17 -(1,4,10)	3	3	3	3	3	3	3		
2	Tool Storage Yard	2BB-2-18 -(1,4,10)	3	3	3	3	3	3	3		
2	Scrap Storage Yard	2BB-2-20 -(1,4,10)	3	3	3	3	3	3	3		
2	Scrap Storage Yard	2BB-2-21 -(1,4,10)	3	3	3	3	3	3	3		
2	Border with Electrical Substation	2BB-2-22 -(1,4,10,15,20,25)	6	6	6	6	6	6	6	6	
2	Border with Electrical Substation	2BB-2-23 -(1,4,10,15,20,25)	6	6	6	6	6	6	6	6	
2	Border with Electrical Substation	2BB-2-24 -(1,4,10)	3	3	3	3	3	3	3	3	
2	Scrap Storage Yard	2BB-2-25 -(1,4,10)	3	3	3	3	3	3	3		
2	Scrap Storage Yard	2BB-2-26 -(1,4,10)	3	3	3	3	3	3	3		
2	Scrap Storage Yard	2BB-2-27 -(1,4,10)	3	3	3	3	3	3	3		
2	Scrap Storage Yard	2BB-2-28 -(1,4,10)	3	3	3	3	3	3	3		
2	Scrap Storage Yard	2BB-2-29 -(1,4,10)	3	3	3	3	3	3	3		

Notes follow at end of table.

TABLE 1
SOIL SAMPLING ANALYTICAL PROGRAM FOR AREAS 2 AND 6

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Location	Sample I D	# of subsurface samples	8260 or 8010/8020	418.1	8015M[1]	Title 22 Metals	Cr (VI)[2]	8270	8080 (PCBs)	8080 (Pesticides)
2	Scrap Storage Yard	2BB-2-30 -(1,4,10)	3	3	3	3	3	3	3		
2	Border with Electrical Substation	2BB-2-31 -(1,4,10,15,20,25)	6	6	6	6	6	6	6	6	
2	Border with Electrical Substation	2BB-2-32 -(1,4,10,15,20,25)	6	6	6	6	6	6	6	6	
2	Border with Montrose Chemical	2BB-2-33 -(1,4,10,15,20,25)	6	6	6	6	6	6	6		6
2	Border with Montrose Chemical	2BB-2-34 -(1,4,10,15,20,25)	6	6	6	6	6	6	6		6
2	Border with Montrose Chemical	2BB-2-35 -(1,4,10,15,20,25)	6	6	6	6					6
6	Border with ILM	2BB-6-1 -(4,10,20,30,40,50)	6	6	6	6	6	5		6	
6	Border with ILM	2BB-6-2 -(1,4,10,20,30,40,50)	7	7	7	7	7	7		7	
6	Border with ILM	2BB-6-3 -(1,4,10,20,30,40,50)	7	7	7	7	7	7		7	
6	Border with ILM	2BB-6-4 -(4,10,20,30,40,55)	6	6	6	6	6	6		6	
6	Border with ILM	2BB-6-5 -(1.5,5,9,19,29,39,49)	7	7	7	7	7	7		7	
6	Border with ILM	2BB-6-6 -(2,5,10,20,30,40,50)	7	7	7	7	7	7		7	
6	Parking Lot	2BB-6-8 -(1,4,10,15,20,25)	6	6	6	6	6	6		6	
6	Parking Lot	2BB-6-9 -(1,4,10,15,20,25)	6	6	6	6	6	6		6	
6	Parking Lot	2BB-6-10 -(1,4,10,15,20,25)	6	6	6	6	6	6		6	
6	Parking Lot	2BB-6-11 -(1,4,10,15,20,25)	6	6	6	6	6	6		6	
6	Parking Lot	2BB-6-12 -(1,4,10,15,20,25)	6	6	6	6	6	6		6	
6	Parking Lot	2BB-6-13 -(1,4,10,15,20,25)	6	6	6	6	6	6		6	
6	Parking Lot	2BB-6-14 -(1,4,10,15,21,25)	6	6	6	6	6	6		6	
6	Parking Lot	2BB-6-15 -(1,4,10,15,20,25)	6	6	6	6	6	6		6	
6	Parking Lot	2BB-6-16 -(1,4,10,15,20,25)	6	6	6	6	6	6		6	
6	Parking Lot	2BB-6-17 -(2,5,10,20,30,40,50)	7	7	7	7	7	4		7	

NOTES:

Blank (empty) cell indicates analysis was not performed for the given sample.

(1) 8015M analysis was only performed on sampes with a TRPH detection in 418.1.

(2) $CR^{(VI)}$ analysis was only performed on samples with >10 mg/kg total Chromium.

Notes follow at end of table.

TABLE 2
COMPARISON OF C-6 FACILITY TITLE 22 METALS CONCENTRATIONS IN SOIL SAMPLES
WITH COMMON SOIL CONCENTRATIONS
AND STATE THRESHOLD LIMIT VALUES

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Tested Inorganic Chemical	Number of Analyses	Number of Detections	Detection Rate	Concentration Detected at C-6 Facility (mg/kg)			Common Range in Soils[a]	CCR TTLC[b] Value	STLC[c] Value
				Min.	Max.	Avg.	(ppm)	(mg/kg)	(mg/l)
Antimony	796	0	0.0%	0	0	0	<1 - 2.6[d]	500	15
Arsenic	796	8	1.0%	12	350	110	1 - 50	500	5
Barium	796	796	100%	7	250	100	100 - 3,000	10,000	100
Beryllium	796	0	0.0%	0	0	0	0.1 - 40	75	0.75
Cadmium	796	4	0.5%	5	9	6	0.01 - 0.7	100	1.0
Chromium (VI)	796	0	0.0%	0	0	0	Not Available	500	560
Chromium Total	796	796	100%	3	150	25	1 - 1,000	2,500	5
Cobalt	796	796	100%	1	47	7	1 - 40	8,000	80
Copper	796	796	100%	1	81	13	2 - 100	2,500	25
Lead	796	11	1.4%	3	72	24	2 - 200	1,000	5
Mercury	796	0	0.0%	0	0	0	<0.01 - 4.6[d]	20	0.2
Molybdenum	796	0	0.0%	0	0	0	<3 - 7[d]	3,500	350
Nickel	796	795	100%	2	140	12	5 - 500	2,000	20
Selenium	796	0	0.0%	0	0	0	0.1 - 2	100	1
Silver	796	0	0.0%	0	0	0	0.01 - 5	500	5
Thallium	796	0	0.0%	0	0	0	2.4 - 31[d]	700	7
Vanadium	796	795	100%	5	66	28	20 - 500	2,400	24
Zinc	796	796	100%	4	120	41	10 - 300	5,000	250

mg/kg = milligrams per kilogram

mg/l = milligrams per liter

ppm = parts per million

(a) *Chemical Equilibria in Soils*. Willard L. Lindsay, John L. Wiley & sons, NY, 1979, unless noted otherwise.

(b) California Code of Regulations (CCR), Title 22, Total Threshold Limit Concentration (TTLC) value. Value set to define a California hazardous waste based on the total concentration.

(c) CCR, Title 22, Soluble Threshold Limit Concentration (STLC) value. Value set to define a California hazardous waste based on leachate concentration.

(d) *Element Concentrations in Soils and Other Surficial Materials of the Conterminious United States.* H. T. Shacklette and J. G. Boerngen, USGS Professional Paper 1270, U.S. Government Printing Office, Washington, 1984.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (c-1,2-DCE)	trans 1,2-Dichloroethene (t-1,2-DCE)	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2	2BB-2-1-1	1																							
2	2BB-2-1-4	4																							
2	2BB-2-1-10	10																							
2	2BB-2-3-1	1																							
2	2BB-2-3-4	4																							
2	2BB-2-3-10	10																							
2	2BB-2-4-1	1																							
2	2BB-2-4-4	4																							
2	2BB-2-4-10	10																							
2	2BB-2-5-4	4																							
2	2BB-2-5-10	10																							
2	2BB-2-6-1	1																							
2	2BB-2-6-4	4																							
2	2BB-2-6-10	10																							
2	2BB-2-7-1	1																							
2	2BB-2-7-4	4																							
2	2BB-2-7-10	10																							
2	2BB-2-8-1	1																							
2	2BB-2-8-4	4																							
2	2BB-2-8-10	10																							
2	2BB-2-9-1	1																							
2	2BB-2-9-4	4																							
2	2BB-2-9-10	10																							
2	2BB-2-10-1	1																							
2	2BB-2-10-4	4																							
2	2BB-2-10-10	10																							
2	2BB-2-11A-1	1																							

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Methylene chloride (Dichloromethane)	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	m,p-Xylenes	o-Xylene	Vinyl chloride	TPH as Gasoline
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1,000
2	2BB-2-1-1	1													
2	2BB-2-1-4	4													
2	2BB-2-1-10	10													
2	2BB-2-3-1	1													
2	2BB-2-3-4	4													
2	2BB-2-3-10	10													
2	2BB-2-4-1	1													
2	2BB-2-4-4	4													
2	2BB-2-4-10	10													
2	2BB-2-5-4	4													
2	2BB-2-5-10	10													
2	2BB-2-6-1	1													
2	2BB-2-6-4	4													
2	2BB-2-6-10	10													
2	2BB-2-7-1	1													
2	2BB-2-7-4	4													
2	2BB-2-7-10	10													
2	2BB-2-8-1	1													
2	2BB-2-8-4	4													
2	2BB-2-8-10	10													
2	2BB-2-9-1	1													
2	2BB-2-9-4	4													
2	2BB-2-9-10	10													
2	2BB-2-10-1	1													
2	2BB-2-10-4	4													
2	2BB-2-10-10	10													
2	2BB-2-11A-1	1													

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (c-1,2-DCE)	trans 1,2-Dichloroethene (t-1,2-DCE)	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
Detection Limit (ug/kg)			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2	2BB-2-11A-4	4																							
2	2BB-2-11A-10	10																							
2	2BB-2-11B-1.5	1.5																							
2	2BB-2-11B-4.5	4.5																							
2	2BB-2-11B-9.5	9.5																							
2	2BB-2-11B-19.5	19.5																							
2	2BB-2-11B-29.5	29.5																							
2	2BB-2-11B-39.5	39.5																							
2	2BB-2-11B-49.5	49.5																							
2	2BB-2-12-1	1																							
2	2BB-2-12-4	4																							
2	2BB-2-12-10	10																							
2	2BB-2-13-1	1																							
2	2BB-2-13-4	4																							
2	2BB-2-13-10	10																							
2	2BB-2-14-4	4																							
2	2BB-2-14-10	10																							
2	2BB-2-15-1	1																							
2	2BB-2-15-4	4																							
2	2BB-2-15-10	10																							
2	2BB-2-16-1	1																							
2	2BB-2-16-4	4																							
2	2BB-2-16-10	10																							
2	2BB-2-17-1	1																							
2	2BB-2-17-4	4																							
2	2BB-2-17-10	10																							
2	2BB-2-18-1	1																							

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Methylene chloride (Dichloromethane)	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	m,p-Xylenes	o-Xylene	Vinyl chloride	TPH as Gasoline
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1,000
2	2BB-2-11A-4	4													
2	2BB-2-11A-10	10													
2	2BB-2-11B-1.5	1.5													
2	2BB-2-11B-4.5	4.5													
2	2BB-2-11B-9.5	9.5													
2	2BB-2-11B-19.5	19.5													
2	2BB-2-11B-29.5	29.5													
2	2BB-2-11B-39.5	39.5													
2	2BB-2-11B-49.5	49.5													
2	2BB-2-12-1	1													
2	2BB-2-12-4	4													
2	2BB-2-12-10	10													
2	2BB-2-13-1	1													
2	2BB-2-13-4	4													
2	2BB-2-13-10	10													
2	2BB-2-14-4	4													
2	2BB-2-14-10	10													
2	2BB-2-15-1	1													
2	2BB-2-15-4	4													
2	2BB-2-15-10	10													
2	2BB-2-16-1	1													
2	2BB-2-16-4	4													
2	2BB-2-16-10	10													
2	2BB-2-17-1	1													
2	2BB-2-17-4	4													
2	2BB-2-17-10	10													
2	2BB-2-18-1	1													

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (c-1,2-DCE)	trans 1,2-Dichloroethene (t-1,2-DCE)	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2	2BB-2-18-4	4																							
2	2BB-2-18-10	10																							
2	2BB-2-20-1	1																							
2	2BB-2-20-4	4																							
2	2BB-2-20-10	10																							
2	2BB-2-21-1	1																							
2	2BB-2-21-4	4																							
2	2BB-2-21-10	10																							
2	2BB-2-22-1	1																							
2	2BB-2-22-4	4																							
2	2BB-2-22-10	10																							
2	2BB-2-22-15	15																							
2	2BB-2-22-20	20																							
2	2BB-2-22-25	25																							
2	2BB-2-23-1	1																							
2	2BB-2-23-4	4																							
2	2BB-2-23-10	10																							
2	2BB-2-23-15	15																							
2	2BB-2-23-20	20																							
2	2BB-2-23-25	25																							
2	2BB-2-24-1	1																							
2	2BB-2-24-4	4																							
2	2BB-2-24-10	10																							
2	2BB-2-25-1	1																							
2	2BB-2-25-4	4																							
2	2BB-2-25-10	10																							
2	2BB-2-26-1	1																							

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Methylene chloride (Dichloromethane)	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	m,p-Xylenes	o-Xylene	Vinyl chloride	TPH as Gasoline
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1,000
2	2BB-2-18-4	4													
2	2BB-2-18-10	10													
2	2BB-2-20-1	1													
2	2BB-2-20-4	4													
2	2BB-2-20-10	10													
2	2BB-2-21-1	1				7.8									
2	2BB-2-21-4	4				5.2									
2	2BB-2-21-10	10													
2	2BB-2-22-1	1													
2	2BB-2-22-4	4													
2	2BB-2-22-10	10													
2	2BB-2-22-15	15													
2	2BB-2-22-20	20													
2	2BB-2-22-25	25													
2	2BB-2-23-1	1													
2	2BB-2-23-4	4													
2	2BB-2-23-10	10													
2	2BB-2-23-15	15													
2	2BB-2-23-20	20													
2	2BB-2-23-25	25													
2	2BB-2-24-1	1													
2	2BB-2-24-4	4													
2	2BB-2-24-10	10													
2	2BB-2-25-1	1													
2	2BB-2-25-4	4													
2	2BB-2-25-10	10													
2	2BB-2-26-1	1													

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (c-1,2-DCE)	trans 1,2-Dichloroethene (t-1,2-DCE)	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
Detection Limit (ug/kg)			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2	2BB-2-26-4	4																							
2	2BB-2-26-10	10																							
2	2BB-2-27-1	1																							
2	2BB-2-27-4	4																							
2	2BB-2-27-10	10																							
2	2BB-2-28-1	1																							
2	2BB-2-28-4	4																							
2	2BB-2-28-10	10																							
2	2BB-2-29-1	1																							
2	2BB-2-29-4	4																							
2	2BB-2-29-10	10																							
2	2BB-2-30-1	1																							
2	2BB-2-30-4	4																							
2	2BB-2-30-10	10																							
2	2BB-2-31-1	1																							
2	2BB-2-31-4	4																							
2	2BB-2-31-10	10																							
2	2BB-2-31-15	15																							
2	2BB-2-31-20	20																							
2	2BB-2-31-25	25																							
2	2BB-2-32-1	1																							
2	2BB-2-32-4	4																							
2	2BB-2-32-10	10																							
2	2BB-2-32-15	15																							
2	2BB-2-32-20	20																							
2	2BB-2-32-25	25																							
2	2BB-2-33-1	1																							

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Methylene chloride (Dichloromethane)	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	m,p-Xylenes	o-Xylene	Vinyl chloride	TPH as Gasoline
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1,000
2	2BB-2-26-4	4													
2	2BB-2-26-10	10													
2	2BB-2-27-1	1													
2	2BB-2-27-4	4													
2	2BB-2-27-10	10													
2	2BB-2-28-1	1													
2	2BB-2-28-4	4													
2	2BB-2-28-10	10													
2	2BB-2-29-1	1													
2	2BB-2-29-4	4													
2	2BB-2-29-10	10													
2	2BB-2-30-1	1													
2	2BB-2-30-4	4													
2	2BB-2-30-10	10													
2	2BB-2-31-1	1													
2	2BB-2-31-4	4													
2	2BB-2-31-10	10													
2	2BB-2-31-15	15													
2	2BB-2-31-20	20													
2	2BB-2-31-25	25													
2	2BB-2-32-1	1													
2	2BB-2-32-4	4													
2	2BB-2-32-10	10													
2	2BB-2-32-15	15													
2	2BB-2-32-20	20													
2	2BB-2-32-25	25													
2	2BB-2-33-1	1													

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (c-1,2-DCE)	trans 1,2-Dichloroethene (t-1,2-DCE)	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2	2BB-2-33-4	4																							
2	2BB-2-33-10	10																							
2	2BB-2-33-15	15																							
2	2BB-2-33-20	20																							
2	2BB-2-33-25	25																							
2	2BB-2-34-1	1																							
2	2BB-2-34-4	4																							
2	2BB-2-34-10	10																							
2	2BB-2-34-15	15								6.3															
2	2BB-2-34-20	20																							
2	2BB-2-34-25	25																							
2	2BB-2-35-1	1																							
2	2BB-2-35-4	4																							
2	2BB-2-35-10	10																							
2	2BB-2-35-15	15								17															
2	2BB-2-35-20	20																							
2	2BB-2-35-25	25																							
6	2BB-6-1-10	10																							
6	2BB-6-1-20	20																							
6	2BB-6-1-30	30																							
6	2BB-6-1-4	4																							
6	2BB-6-1-40	40																							
6	2BB-6-1-50	50																							
6	2BB-6-2-1	1																							
6	2BB-6-2-4	4																							
6	2BB-6-2-10	10																							
6	2BB-6-2-20	20																							

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Methylene chloride (Dichloromethane)	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	m,p-Xylenes	p-Xylene	Vinyl chloride	TPH as Gasoline
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1,000
2	2BB-2-33-4	4													
2	2BB-2-33-10	10													
2	2BB-2-33-15	15													
2	2BB-2-33-20	20													
2	2BB-2-33-25	25													
2	2BB-2-34-1	1													
2	2BB-2-34-4	4													
2	2BB-2-34-10	10													
2	2BB-2-34-15	15				6.7				5.1					
2	2BB-2-34-20	20													
2	2BB-2-34-25	25													
2	2BB-2-35-1	1													
2	2BB-2-35-4	4													
2	2BB-2-35-10	10													
2	2BB-2-35-15	15													
2	2BB-2-35-20	20													
2	2BB-2-35-25	25													
6	2BB-6-1-10	10													
6	2BB-6-1-20	20													
6	2BB-6-1-30	30													
6	2BB-6-1-4	4													
6	2BB-6-1-40	40								15					
6	2BB-6-1-50	50								52					
6	2BB-6-2-1	1													
6	2BB-6-2-4	4								9.6					
6	2BB-6-2-10	10													
6	2BB-6-2-20	20								9.1					

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (c-1,2-DCE)	trans 1,2-Dichloroethene (t-1,2-DCE)	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
Detection Limit (ug/kg)			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
6	2BB-6-2-30	30																							
6	2BB-6-2-40	40																							
6	2BB-6-2-50	50																							
6	2BB-6-3-1	1																							
6	2BB-6-3-4	4																							
6	2BB-6-3-10	10																							
6	2BB-6-3-20	20																							
6	2BB-6-3-30	30																							
6	2BB-6-3-40	40																							
6	2BB-6-3-50	50																							
6	2BB-6-4-4	4																							
6	2BB-6-4-10	10																							
6	2BB-6-4-20	20																							
6	2BB-6-4-30	30																							
6	2BB-6-4-40	40																							
6	2BB-6-4-55	55																							
6	2BB-6-5-2	2																							
6	2BB-6-5-4.5	4.5																							
6	2BB-6-5-9.5	9.5																							
6	2BB-6-5-19.5	19.5																							
6	2BB-6-5-29.5	29.5																							
6	2BB-6-5-39.5	39.5																							
6	2BB-6-5-49.5	49.5																							
6	2BB-6-6-1.5	1.5																							
6	2BB-6-6-4.5	4.5																							
6	2BB-6-6-9.5	9.5																							
6	2BB-6-6-19.5	19.5																							

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Methylene chloride (Dichloromethane)	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	m,p-Xylenes	o-Xylene	Vinyl chloride	TPH as Gasoline
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1,000
6	2BB-6-2-30	30													
6	2BB-6-2-40	40								16					
6	2BB-6-2-50	50								19					
6	2BB-6-3-1	1								23					
6	2BB-6-3-4	4													
6	2BB-6-3-10	10								13					
6	2BB-6-3-20	20								5.9					
6	2BB-6-3-30	30													
6	2BB-6-3-40	40								34					
6	2BB-6-3-50	50								6.2					
6	2BB-6-4-4	4								17					
6	2BB-6-4-10	10								33					
6	2BB-6-4-20	20								16					
6	2BB-6-4-30	30								34					
6	2BB-6-4-40	40								15					
6	2BB-6-4-55	55								13					
6	2BB-6-5-2	2								8.4					
6	2BB-6-5-4.5	4.5								7.4					
6	2BB-6-5-9.5	9.5								7.7					
6	2BB-6-5-19.5	19.5								16					
6	2BB-6-5-29.5	29.5								17					
6	2BB-6-5-39.5	39.5								33					
6	2BB-6-5-49.5	49.5								28					
6	2BB-6-6-1.5	1.5													
6	2BB-6-6-4.5	4.5													
6	2BB-6-6-9.5	9.5													
6	2BB-6-6-19.5	19.5													

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (c-1,2-DCE)	trans 1,2-Dichloroethene (t-1,2-DCE)	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
6	2BB-6-6-29.5	29.5																							
6	2BB-6-6-39.5	39.5																							
6	2BB-6-6-50.5	50.5																							
6	2BB-6-8-1	1																							
6	2BB-6-8-4	4																							
6	2BB-6-8-10	10																							
6	2BB-6-8-15	15																							
6	2BB-6-8-20	20																							
6	2BB-6-8-25	25																							
6	2BB-6-9-1	1																							
6	2BB-6-9-4	4																							
6	2BB-6-9-10	10																							
6	2BB-6-9-15	15																							
6	2BB-6-9-20	20																							
6	2BB-6-9-25	25																							
6	2BB-6-10-1	1																							
6	2BB-6-10-4	4																							
6	2BB-6-10-10	10																							
6	2BB-6-10-15	15																							
6	2BB-6-10-20	20																							
6	2BB-6-10-25	25																							
6	2BB-6-11A-1	1																							
6	2BB-6-11A-4	4																							
6	2BB-6-11A-10	10																							
6	2BB-6-11B-15	15																							
6	2BB-6-11B-20	20																							
6	2BB-6-11B-25	25																							

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Methylene chloride (Dichloromethane)	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	m,p-Xylenes	o-Xylene	Vinyl chloride	TPH as Gasoline
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1,000
6	2BB-6-6-29.5	29.5													
6	2BB-6-6-39.5	39.5								6.0					
6	2BB-6-6-50.5	50.5													
6	2BB-6-8-1	1													
6	2BB-6-8-4	4													
6	2BB-6-8-10	10													
6	2BB-6-8-15	15													
6	2BB-6-8-20	20													
6	2BB-6-8-25	25													
6	2BB-6-9-1	1													
6	2BB-6-9-4	4													
6	2BB-6-9-10	10													
6	2BB-6-9-15	15													
6	2BB-6-9-20	20													
6	2BB-6-9-25	25													
6	2BB-6-10-1	1													
6	2BB-6-10-4	4													
6	2BB-6-10-10	10													
6	2BB-6-10-15	15													
6	2BB-6-10-20	20													
6	2BB-6-10-25	25													
6	2BB-6-11A-1	1													
6	2BB-6-11A-4	4													
6	2BB-6-11A-10	10													
6	2BB-6-11B-15	15													
6	2BB-6-11B-20	20													
6	2BB-6-11B-25	25													

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (c-1,2-DCE)	trans 1,2-Dichloroethene (t-1,2-DCE)	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
6	2BB-6-12-1	1																							
6	2BB-6-12-4	4																							
6	2BB-6-12-10	10																							
6	2BB-6-12-15	15																							
6	2BB-6-12-20	20																							
6	2BB-6-12-25	25																							
6	2BB-6-13-1	1																							
6	2BB-6-13-4	4																							
6	2BB-6-13-10	10																							
6	2BB-6-13-15	15																							
6	2BB-6-13-20	20																							
6	2BB-6-13-25	25																							
6	2BB-6-14-1	1																							
6	2BB-6-14-4	4																							
6	2BB-6-14-10	10																							
6	2BB-6-14-15	15																							
6	2BB-6-14-21	21																							
6	2BB-6-14-25	25																							
6	2BB-6-15-1	1																							
6	2BB-6-15-4	4																							
6	2BB-6-15-10	10																							
6	2BB-6-15-15	15																							
6	2BB-6-15-20	20																							
6	2BB-6-15-25	25																							
6	2BB-6-16-1	1																							
6	2BB-6-16-4	4																							
6	2BB-6-16-10	10																							

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Methylene chloride (Dichloromethane)	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	m,p-Xylenes	o-Xylene	Vinyl chloride	TPH as Gasoline
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1,000
6	2BB-6-12-1	1													
6	2BB-6-12-4	4													
6	2BB-6-12-10	10													
6	2BB-6-12-15	15													
6	2BB-6-12-20	20													
6	2BB-6-12-25	25													
6	2BB-6-13-1	1													
6	2BB-6-13-4	4													
6	2BB-6-13-10	10													
6	2BB-6-13-15	15													
6	2BB-6-13-20	20													
6	2BB-6-13-25	25													
6	2BB-6-14-1	1													
6	2BB-6-14-4	4													
6	2BB-6-14-10	10													
6	2BB-6-14-15	15													
6	2BB-6-14-21	21													
6	2BB-6-14-25	25													
6	2BB-6-15-1	1													
6	2BB-6-15-4	4													
6	2BB-6-15-10	10													
6	2BB-6-15-15	15													
6	2BB-6-15-20	20													
6	2BB-6-15-25	25													
6	2BB-6-16-1	1													
6	2BB-6-16-4	4													
6	2BB-6-16-10	10													

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (c-1,2-DCE)	trans 1,2-Dichloroethene (t-1,2-DCE)	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
Detection Limit (ug/kg)			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
6	2BB-6-16-15	15																							
6	2BB-6-16-20	20																							
6	2BB-6-16-25	25																							
6	2BB-6-17-1.5	1.5																							
6	2BB-6-17-4.5	4.5																							
6	2BB-6-17-9.5	9.5																							
6	2BB-6-17-19.5	19.5																							
6	2BB-6-17-29.5	29.5																							
6	2BB-6-17-39.5	39.5																							
6	2BB-6-17-49.5	49.5																							

Shaded cell indicates constituent result
was below the detection limit

Shaded cell indicates constutent result was below the detection limit.

TABLE 3
CHEMICAL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS (MOBILE LABORATORY) (EPA Method 8260)
Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Methylene chloride (Dichloromethane)	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	m,p-Xylenes	p-Xylene	Vinyl chloride	TPH as Gasoline
	Detection Limit (ug/kg)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1,000
6	2BB-6-16-15	15													
6	2BB-6-16-20	20													
6	2BB-6-16-25	25													
6	2BB-6-17-1.5	1.5													
6	2BB-6-17-4.5	4.5													
6	2BB-6-17-9.5	9.5													
6	2BB-6-17-19.5	19.5													
6	2BB-6-17-29.5	29.5													
6	2BB-6-17-39.5	39.5													
6	2BB-6-17-49.5	49.5													

Shaded cell indicates constituent result
was below the detection limit

Shaded cell indicates constutent result was below the detection limit.

TABLE 4
CHEMICAL ANALYTICAL RESULTS:
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (MOBILE LABORATORY)
(EPA Methods 418.1/8015M)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	TRPH (EPA 418.1)	TPH-E Diesel (EPA 8015M)	TPH-E Motor Oil (EPA 8015M)
Detection Limit (mg/kg)			10	10	10
2	2BB-2-1-1	1	61		
2	2BB-2-1-4	4	97		12
2	2BB-2-1-10	10	150		
2	2BB-2-3-1	1	12		
2	2BB-2-3-4	4	210		26
2	2BB-2-3-10	10			
2	2BB-2-4-1	1	15		
2	2BB-2-4-4	4	12		
2	2BB-2-4-10	10	36		
2	2BB-2-5-4	4			
2	2BB-2-5-10	10			
2	2BB-2-6-1	1			
2	2BB-2-6-4	4	37		
2	2BB-2-6-10	10			
2	2BB-2-7-1	1			
2	2BB-2-7-4	4			
2	2BB-2-7-10	10			
2	2BB-2-8-1	1			
2	2BB-2-8-4	4			
2	2BB-2-8-10	10			
2	2BB-2-9-1	1			
2	2BB-2-9-4	4	29		
2	2BB-2-9-10	10	32		
2	2BB-2-10-1	1			
2	2BB-2-10-4	4			
2	2BB-2-10-10	10			
2	2BB-2-11A-1	1			
2	2BB-2-11B-1.5	1.5	3200		710 *
2	2BB-2-11A-4	4			
2	2BB-2-11B-4.5	4.5			
2	2BB-2-11A-10	10			
2	2BB-2-11B-19.5	19.5			
2	2BB-2-11B-29.5	29.5			
2	2BB-2-11B-39.5	39.5			

Notes follow at end of table.

TABLE 4
CHEMICAL ANALYTICAL RESULTS:
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (MOBILE LABORATORY)
(EPA Methods 418.1/8015M)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	TRPH (EPA 418.1)	TPH-E Diesel (EPA 8015M)	TPH-E Motor Oil (EPA 8015M)
Detection Limit (mg/kg)			10	10	10
2	2BB-2-11B-49.5	49.5			
2	2BB-2-11B-9.5	9.5			
2	2BB-2-12-1	1	38		
2	2BB-2-12-4	4	67		
2	2BB-2-12-10	10	15		
2	2BB-2-13-1	1	15		
2	2BB-2-13-4	4	37		11
2	2BB-2-13-10	10	31		
2	2BB-2-14-4	4	45		
2	2BB-2-14-10	10	35		
2	2BB-2-15-1	1	18		
2	2BB-2-15-4	4	6000		420 *
2	2BB-2-15-10	10			
2	2BB-2-16-1	1	220		430 *
2	2BB-2-16-4	4	83		130
2	2BB-2-16-10	10			
2	2BB-2-17-1	1	110		
2	2BB-2-17-4	4	270		3000 *
2	2BB-2-17-10	10			
2	2BB-2-18-1	1	19		
2	2BB-2-18-4	4	33		26
2	2BB-2-18-10	10			
2	2BB-2-20-1	1			
2	2BB-2-20-4	4			
2	2BB-2-20-10	10			
2	2BB-2-21-1	1			
2	2BB-2-21-4	4			
2	2BB-2-21-10	10			
2	2BB-2-22-1	1	57		
2	2BB-2-22-4	4	40		
2	2BB-2-22-10	10			
2	2BB-2-22-15	15			
2	2BB-2-22-20	20			
2	2BB-2-22-25	25			

Notes follow at end of table.

TABLE 4
CHEMICAL ANALYTICAL RESULTS:
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (MOBILE LABORATORY)
(EPA Methods 418.1/8015M)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	TRPH (EPA 418.1)	TPH-E Diesel (EPA 8015M)	TPH-E Motor Oil (EPA 8015M)
	Detection Limit (mg/kg)		10	10	10
2	2BB-2-23-1	1	14		
2	2BB-2-23-4	4	360		98 *
2	2BB-2-23-10	10			
2	2BB-2-23-15	15			
2	2BB-2-23-20	20			
2	2BB-2-23-25	25			
2	2BB-2-24-1	1	20		
2	2BB-2-24-4	4	53		66 *
2	2BB-2-24-10	10			
2	2BB-2-25-1	1	42		57 *
2	2BB-2-25-4	4	16		
2	2BB-2-25-10	10			
2	2BB-2-26-1	1	450		280 *
2	2BB-2-26-4	4	50		
2	2BB-2-26-10	10			
2	2BB-2-27-1	1	33		
2	2BB-2-27-4	4	99		
2	2BB-2-27-10	10			
2	2BB-2-28-1	1	67		78 *
2	2BB-2-28-4	4			
2	2BB-2-28-10	10			
2	2BB-2-29-1	1			
2	2BB-2-29-4	4			
2	2BB-2-29-10	10			
2	2BB-2-30-1	1	61		37 *
2	2BB-2-30-4	4	17		
2	2BB-2-30-10	10			
2	2BB-2-31-1	1	11		
2	2BB-2-31-4	4			
2	2BB-2-31-10	10			
2	2BB-2-31-15	15			
2	2BB-2-31-20	20			
2	2BB-2-31-25	25			
2	2BB-2-32-1	1	11		

Notes follow at end of table.

TABLE 4
CHEMICAL ANALYTICAL RESULTS:
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (MOBILE LABORATORY)
(EPA Methods 418.1/8015M)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	TRPH (EPA 418.1)	TPH-E Diesel (EPA 8015M)	TPH-E Motor Oil (EPA 8015M)
	Detection Limit (mg/kg)		10	10	10
2	2BB-2-32-4	4			
2	2BB-2-32-10	10			
2	2BB-2-32-15	15			
2	2BB-2-32-20	20			
2	2BB-2-32-25	25	11		
2	2BB-2-33-1	1			
2	2BB-2-33-4	4			
2	2BB-2-33-10	10			
2	2BB-2-33-15	15			
2	2BB-2-33-20	20			
2	2BB-2-33-25	25			
2	2BB-2-34-1	1	24		
2	2BB-2-34-4	4			
2	2BB-2-34-10	10			
2	2BB-2-34-15	15			
2	2BB-2-34-20	20			
2	2BB-2-34-25	25			
2	2BB-2-35-1	1	56		
2	2BB-2-35-4	4			
2	2BB-2-35-10	10			
2	2BB-2-35-15	15			
2	2BB-2-35-20	20	12		
2	2BB-2-35-25	25	13		
6	2BB-6-1-4	4			
6	2BB-6-1-10	10			
6	2BB-6-1-20	20			
6	2BB-6-1-30	30			
6	2BB-6-1-40	40			
6	2BB-6-1-50	50			
6	2BB-6-2-1	1			
6	2BB-6-2-4	4			
6	2BB-6-2-10	10			
6	2BB-6-2-20	20			
6	2BB-6-2-30	30			

Notes follow at end of table.

TABLE 4
CHEMICAL ANALYTICAL RESULTS:
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (MOBILE LABORATORY)
(EPA Methods 418.1/8015M)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	TRPH (EPA 418.1)	TPH-E Diesel (EPA 8015M)	TPH-E Motor Oil (EPA 8015M)
	Detection Limit (mg/kg)		10	10	10
6	2BB-6-2-40	40			
6	2BB-6-2-50	50			
6	2BB-6-3-1	1			
6	2BB-6-3-4	4			
6	2BB-6-3-10	10			
6	2BB-6-3-20	20			
6	2BB-6-3-30	30			
6	2BB-6-3-40	40			
6	2BB-6-3-50	50			
6	2BB-6-4-4	4			
6	2BB-6-4-10	10			
6	2BB-6-4-20	20			
6	2BB-6-4-30	30			
6	2BB-6-4-40	40			
6	2BB-6-4-50	50			
6	2BB-6-5-2.0	2	23		
6	2BB-6-5-4.5	4.5	41		
6	2BB-6-5-9.5	9.5			
6	2BB-6-5-19.5	19.5			
6	2BB-6-5-29.5	29.5			
6	2BB-6-5-39.5	39.5			
6	2BB-6-5-49.5	49.5			
6	2BB-6-6-1.5	1.5	23		
6	2BB-6-6-4.5	4.5			
6	2BB-6-6-9.5	9.5			
6	2BB-6-6-19.5	19.5			
6	2BB-6-6-29.5	29.5			
6	2BB-6-6-39.5	39.5			
6	2BB-6-6-50.5	50.5			
6	2BB-6-8-1	1			
6	2BB-6-8-4	4	33		110 *
6	2BB-6-8-10	10			
6	2BB-6-8-15	15			
6	2BB-6-8-20	20			

Notes follow at end of table.

TABLE 4
CHEMICAL ANALYTICAL RESULTS:
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (MOBILE LABORATORY)
(EPA Methods 418.1/8015M)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	TRPH (EPA 418.1)	TPH-E Diesel (EPA 8015M)	TPH-E Motor Oil (EPA 8015M)
	Detection Limit (mg/kg)		10	10	10
6	2BB-6-8-25	25			
6	2BB-6-9-1	1	31		41 *
6	2BB-6-9-4	4	140		110 *
6	2BB-6-9-10	10	23		
6	2BB-6-9-15	15			
6	2BB-6-9-20	20			
6	2BB-6-9-25	25			
6	2BB-6-10-1	1	86		58 *
6	2BB-6-10-4	4	28		
6	2BB-6-10-10	10			
6	2BB-6-10-15	15			
6	2BB-6-10-20	20			
6	2BB-6-10-25	25			
6	2BB-6-11A-1	1	200		74 *
6	2BB-6-11A-4	4	32		34 *
6	2BB-6-11A-10	10			
6	2BB-6-11B-15	15			
6	2BB-6-11B-20	20			
6	2BB-6-11B-25	25			
6	2BB-6-12-1	1	73		
6	2BB-6-12-4	4	40		
6	2BB-6-12-10	10	16		
6	2BB-6-12-15	15			
6	2BB-6-12-20	20			
6	2BB-6-12-25	25			
6	2BB-6-13-1	1			
6	2BB-6-13-4	4			
6	2BB-6-13-10	10			
6	2BB-6-13-15	15			
6	2BB-6-13-20	20			
6	2BB-6-13-25	25	18		
6	2BB-6-14-1	1	28		
6	2BB-6-14-4	4	30		
6	2BB-6-14-10	10	28		

Notes follow at end of table.

TABLE 4
CHEMICAL ANALYTICAL RESULTS:
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (MOBILE LABORATORY)
(EPA Methods 418.1/8015M)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	TRPH (EPA 418.1)	TPH-E Diesel (EPA 8015M)	TPH-E Motor Oil (EPA 8015M)
	Detection Limit (mg/kg)		10	10	10
6	2BB-6-14-15	15			
5	2BB-6-14-20	20			
6	2BB-6-14-21	21			
6	2BB-6-14-25	25			
6	2BB-6-15-1	1	27		
6	2BB-6-15-4	4	17		
6	2BB-6-15-10	10			
6	2BB-6-15-15	15			
6	2BB-6-15-20	20			
6	2BB-6-15-25	25			
6	2BB-6-16-1	1			
6	2BB-6-16-4	4			
6	2BB-6-16-10	10			
6	2BB-6-16-15	15			
6	2BB-6-16-20	20			
6	2BB-6-16-25	25			
6	2BB-6-17-1.5	1.5			
6	2BB-6-17-4.5	4.5			
6	2BB-6-17-9.5	9.5			
6	2BB-6-17-19.5	19.5			
6	2BB-6-17-29.5	29.5			
6	2BB-6-17-39.5	39.5			
6	2BB-6-17-49.5	49.5			

Unshaded (blank) cell indicates sample was not analyzed for constituent
Shaded cell indicates constituent result was below the detection limit
* - Sample chromatogram does not match standard gasoline chromatogram

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzidine	Benzoic acid	Benz(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	4-Bromophenyl phenyl ether	Butyl benzyl phthalate	4-Chloroaniline	2-Chloronaphthalene	4-Chloro-3-methylphenol	2-Chlorophenol	4-Chlorophenyl phenyl ether	Chrysene	Dibenz(a,h)anthracene
Detection Limit (ug/kg)			100	100	100	100	500	250	100	250	250	250	250	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2	2BB-2-3-1	1																									
2	2BB-2-3-4	4																									
2	2BB-2-3-10	10																									
2	2BB-2-4-1	1																									
2	2BB-2-4-4	4																									
2	2BB-2-4-10	10																									
2	2BB-2-5-4	4																									
2	2BB-2-5-10	10																									
2	2BB-2-6-1	1																									
2	2BB-2-6-4	4																270									
2	2BB-2-6-10	10																									
2	2BB-2-7-1	1																									
2	2BB-2-7-4	4																									
2	2BB-2-7-10	10																120									
2	2BB-2-8-1	1																									
2	2BB-2-8-4	4																									
2	2BB-2-8-10	10																									
2	2BB-2-9-1	1																									
2	2BB-2-9-4	4																									
2	2BB-2-9-10	10																									
2	2BB-2-10-1	1																120									
2	2BB-2-10-4	4																									
2	2BB-2-10-10	10																									
2	2BB-2-11A-1	1																									
2	2BB-2-11A-4	4																260									
2	2BB-2-11A-10	10																									
2	2BB-2-11B-2.0	2																									
2	2BB-2-11B-5.0	5																									
2	2BB-2-11B-9.0	9																170									
2	2BB-2-11B-19.0	19																									

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Dibenzofuran	Di-n-butyl phthalate	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	3,3'-Dichlorobenzidine	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate	4,6-Dinitro-2-methylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	2-Methylnaphthalene	2-Methylphenol
Detection Limit (ug/kg)			100	250	100	100	100	100	100	100	100	100	100	100	250	250	250	100	100	100	100	100	100	250	100	100	100
2	2BB-2-3-1	1																									
2	2BB-2-3-4	4																									
2	2BB-2-3-10	10																									
2	2BB-2-4-1	1																									
2	2BB-2-4-4	4																									
2	2BB-2-4-10	10																									
2	2BB-2-5-4	4																									
2	2BB-2-5-10	10																									
2	2BB-2-6-1	1																									
2	2BB-2-6-4	4																									
2	2BB-2-6-10	10																									
2	2BB-2-7-1	1																									
2	2BB-2-7-4	4																									
2	2BB-2-7-10	10																									
2	2BB-2-8-1	1																									
2	2BB-2-8-4	4																									
2	2BB-2-8-10	10																									
2	2BB-2-9-1	1																									
2	2BB-2-9-4	4																									
2	2BB-2-9-10	10																									
2	2BB-2-10-1	1																									
2	2BB-2-10-4	4																									
2	2BB-2-10-10	10																									
2	2BB-2-11A-1	1																									
2	2BB-2-11A-4	4																									
2	2BB-2-11A-10	10																									
2	2BB-2-11B-2.0	2																									
2	2BB-2-11B-5.0	5																									
2	2BB-2-11B-9.0	9																									
2	2BB-2-11B-19.0	19																									

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	4-Methylphenol	Naphthalene	2-Nitroaniline	3-Nitroaniline	4-Nitroaniline	Nitrobenzene	2-Nitrophenol	4-Nitrophenol	N-Nitrosodiphenylamine	N-Nitroso-di-n-propylamine	N-Nitrosodimethylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	1,2,4-Trichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol
Detection Limit (ug/kg)			100	100	250	250	250	100	100	100	100	100	100	250	100	100	100	100	100	100
2	2BB-2-3-1	1																		
2	2BB-2-3-4	4																		
2	2BB-2-3-10	10																		
2	2BB-2-4-1	1																		
2	2BB-2-4-4	4																		
2	2BB-2-4-10	10																		
2	2BB-2-5-4	4																		
2	2BB-2-5-10	10																		
2	2BB-2-6-1	1																		
2	2BB-2-6-4	4																		
2	2BB-2-6-10	10																		
2	2BB-2-7-1	1																		
2	2BB-2-7-4	4																		
2	2BB-2-7-10	10																		
2	2BB-2-8-1	1																		
2	2BB-2-8-4	4																		
2	2BB-2-8-10	10																		
2	2BB-2-9-1	1																		
2	2BB-2-9-4	4																		
2	2BB-2-9-10	10																		
2	2BB-2-10-1	1																		
2	2BB-2-10-4	4																		
2	2BB-2-10-10	10																		
2	2BB-2-11A-1	1																		
2	2BB-2-11A-4	4																		
2	2BB-2-11A-10	10																		
2	2BB-2-11B-2.0	2																		
2	2BB-2-11B-5.0	5																		
2	2BB-2-11B-9.0	9																		
2	2BB-2-11B-19.0	19																		

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzidine	Benzoic acid	Benz(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	4-Bromophenyl phenyl ether	Butyl benzyl phthalate	4-Chloroaniline	2-Chloronaphthalene	4-Chloro-3-methylphenol	2-Chlorophenol	4-Chlorophenyl phenyl ether	Chrysene	Dibenz(a,h)anthracene
	Detection Limit (ug/kg)		100	100	100	100	500	250	100	250	250	250	250	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2	2BB-2-11B-29.0	29																									
2	2BB-2-11B-39.0	39																									
2	2BB-2-11B-49.0	49																									
2	2BB-2-12-1	1																									
2	2BB-2-12-4	4																									
2	2BB-2-12-10	10																									
2	2BB-2-13-1	1																									
2	2BB-2-13-4	4																									
2	2BB-2-13-10	10																									
2	2BB-2-14-4	4																									
2	2BB-2-14-10	10																120									
2	2BB-2-15-1	1																									
2	2BB-2-15-4	4																									
2	2BB-2-15-10	10																									
2	2BB-2-16-1	1																									
2	2BB-2-16-4	4																									
2	2BB-2-16-10	10																140									
2	2BB-2-17-1	1																									
2	2BB-2-17-4	4																									
2	2BB-2-17-10	10																									
2	2BB-2-18-1	1																									
2	2BB-2-18-4	4																									
2	2BB-2-18-10	10																									
2	2BB-2-20-1	1																									
2	2BB-2-20-4	4																									
2	2BB-2-20-10	10																									
2	2BB-2-21-1	1																									
2	2BB-2-21-4	4							170									230								150	
2	2BB-2-21-10	10																110									
2	2BB-2-22-1	1																									

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Dibenzofuran	Di-n-butyl phthalate	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	3,3'-Dichlorobenzidine	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate	4,6-Dinitro-2-methylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	2-Methylnaphthalene	2-Methylphenol
Detection Limit (ug/kg)			100	250	100	100	100	100	100	100	100	100	100	100	250	250	250	100	100	100	100	100	100	250	100	100	100
2	2BB-2-11B-29.0	29																									
2	2BB-2-11B-39.0	39																									
2	2BB-2-11B-49.0	49																									
2	2BB-2-12-1	1																									
2	2BB-2-12-4	4																									
2	2BB-2-12-10	10																									
2	2BB-2-13-1	1																									
2	2BB-2-13-4	4																									
2	2BB-2-13-10	10																									
2	2BB-2-14-4	4																									
2	2BB-2-14-10	10																									
2	2BB-2-15-1	1																									
2	2BB-2-15-4	4																									
2	2BB-2-15-10	10																									
2	2BB-2-16-1	1																									
2	2BB-2-16-4	4																									
2	2BB-2-16-10	10																									
2	2BB-2-17-1	1																									
2	2BB-2-17-4	4																									
2	2BB-2-17-10	10																									
2	2BB-2-18-1	1																									
2	2BB-2-18-4	4																									
2	2BB-2-18-10	10																									
2	2BB-2-20-1	1																									
2	2BB-2-20-4	4																									
2	2BB-2-20-10	10																									
2	2BB-2-21-1	1																									
2	2BB-2-21-4	4																470									
2	2BB-2-21-10	10																									
2	2BB-2-22-1	1																									

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	4-Methylphenol	Naphthalene	2-Nitroaniline	3-Nitroaniline	4-Nitroaniline	Nitrobenzene	2-Nitrophenol	4-Nitrophenol	N-Nitrosodiphenylamine	N-Nitroso-di-n-propylamine	N-Nitrosodimethylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	1,2,4-Trichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol
	Detection Limit (ug/kg)		100	100	250	250	250	100	100	100	100	100	100	250	100	100	100	100	100	100
2	2BB-2-11B-29.0	29																		
2	2BB-2-11B-39.0	39																		
2	2BB-2-11B-49.0	49																		
2	2BB-2-12-1	1																		
2	2BB-2-12-4	4																		
2	2BB-2-12-10	10																		
2	2BB-2-13-1	1																		
2	2BB-2-13-4	4																		
2	2BB-2-13-10	10																		
2	2BB-2-14-4	4																		
2	2BB-2-14-10	10																		
2	2BB-2-15-1	1																		
2	2BB-2-15-4	4																		
2	2BB-2-15-10	10																		
2	2BB-2-16-1	1														170				
2	2BB-2-16-4	4																		
2	2BB-2-16-10	10																		
2	2BB-2-17-1	1																		
2	2BB-2-17-4	4																		
2	2BB-2-17-10	10																		
2	2BB-2-18-1	1																		
2	2BB-2-18-4	4																		
2	2BB-2-18-10	10																		
2	2BB-2-20-1	1																		
2	2BB-2-20-4	4																		
2	2BB-2-20-10	10																		
2	2BB-2-21-1	1																		
2	2BB-2-21-4	4													320		300			
2	2BB-2-21-10	10																		
2	2BB-2-22-1	1																		

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzidine	Benzoic acid	Benz(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	4-Bromophenyl phenyl ether	Butyl benzyl phthalate	4-Chloroaniline	2-Chloronaphthalene	4-Chloro-3-methylphenol	2-Chlorophenol	4-Chlorophenyl phenyl ether	Chrysene	Dibenz(a,h)anthracene
Detection Limit (ug/kg)			100	100	100	100	500	250	100	250	250	250	250	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2	2BB-2-22-4	4																									
2	2BB-2-22-10	10																									
2	2BB-2-22-15	15																									
2	2BB-2-22-20	20																									
2	2BB-2-22-25	25																									
2	2BB-2-23-1	1																									
2	2BB-2-23-4	4																									
2	2BB-2-23-10	10																									
2	2BB-2-23-15	15																									
2	2BB-2-23-20	20																									
2	2BB-2-23-25	25																									
2	2BB-2-24-1	1																									
2	2BB-2-24-4	4																									
2	2BB-2-24-10	10																									
2	2BB-2-25-1	1																									
2	2BB-2-25-4	4																									
2	2BB-2-25-10	10																									
2	2BB-2-26-1	1																									
2	2BB-2-26-4	4																									
2	2BB-2-26-10	10																									
2	2BB-2-27-1	1																									
2	2BB-2-27-4	4																120									
2	2BB-2-27-10	10																									
2	2BB-2-28-1	1																									
2	2BB-2-28-4	4																									
2	2BB-2-28-10	10																									
2	2BB-2-29-1	1																									
2	2BB-2-29-4	4																									
2	2BB-2-29-10	10																									
2	2BB-2-30-1	1																120									

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Dibenzofuran	Di-n-butyl phthalate	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	3,3'-Dichlorobenzidine	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate	4,6-Dinitro-2-methylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	2-Methylnaphthalene	2-Methylphenol
	Detection Limit (ug/kg)		100	250	100	100	100	100	100	100	100	100	100	100	250	250	250	100	100	100	100	100	100	250	100	100	100
2	2BB-2-22-4	4																									
2	2BB-2-22-10	10																									
2	2BB-2-22-15	15																									
2	2BB-2-22-20	20																									
2	2BB-2-22-25	25																									
2	2BB-2-23-1	1																									
2	2BB-2-23-4	4																									
2	2BB-2-23-10	10																									
2	2BB-2-23-15	15																									
2	2BB-2-23-20	20																									
2	2BB-2-23-25	25																									
2	2BB-2-24-1	1																									
2	2BB-2-24-4	4																									
2	2BB-2-24-10	10																									
2	2BB-2-25-1	1																									
2	2BB-2-25-4	4																									
2	2BB-2-25-10	10																									
2	2BB-2-26-1	1																									
2	2BB-2-26-4	4																									
2	2BB-2-26-10	10																									
2	2BB-2-27-1	1																									
2	2BB-2-27-4	4																									
2	2BB-2-27-10	10																									
2	2BB-2-28-1	1																									
2	2BB-2-28-4	4																									
2	2BB-2-28-10	10																									
2	2BB-2-29-1	1																									
2	2BB-2-29-4	4																									
2	2BB-2-29-10	10																									
2	2BB-2-30-1	1																									

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	4-Methylphenol	Naphthalene	2-Nitroaniline	3-Nitroaniline	4-Nitroaniline	Nitrobenzene	2-Nitrophenol	4-Nitrophenol	N-Nitrosodiphenylamine	N-Nitroso-di-n-propylamine	N-Nitrosodimethylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	1,2,4-Trichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol
	Detection Limit (ug/kg)		100	100	250	250	250	100	100	100	100	100	100	250	100	100	100	100	100	100
2	2BB-2-22-4	4																		
2	2BB-2-22-10	10																		
2	2BB-2-22-15	15																		
2	2BB-2-22-20	20																		
2	2BB-2-22-25	25																		
2	2BB-2-23-1	1																		
2	2BB-2-23-4	4																		
2	2BB-2-23-10	10																		
2	2BB-2-23-15	15																		
2	2BB-2-23-20	20																		
2	2BB-2-23-25	25																		
2	2BB-2-24-1	1																		
2	2BB-2-24-4	4																		
2	2BB-2-24-10	10																		
2	2BB-2-25-1	1																		
2	2BB-2-25-4	4																		
2	2BB-2-25-10	10																		
2	2BB-2-26-1	1																		
2	2BB-2-26-4	4																		
2	2BB-2-26-10	10																		
2	2BB-2-27-1	1																		
2	2BB-2-27-4	4																		
2	2BB-2-27-10	10																		
2	2BB-2-28-1	1																		
2	2BB-2-28-4	4																		
2	2BB-2-28-10	10																		
2	2BB-2-29-1	1																		
2	2BB-2-29-4	4																		
2	2BB-2-29-10	10																		
2	2BB-2-30-1	1																		

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzidine	Benzoic acid	Benz(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	4-Bromophenyl phenyl ether	Butyl benzyl phthalate	4-Chloroaniline	2-Chloronaphthalene	4-Chloro-3-methylphenol	2-Chlorophenol	4-Chlorophenyl phenyl ether	Chrysene	Dibenz(a,h)anthracene
Detection Limit (ug/kg)			100	100	100	100	500	250	100	250	250	250	250	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2	2BB-2-30-4	4																									
2	2BB-2-30-10	10																									
2	2BB-2-31-1	1																									
2	2BB-2-31-4	4																									
2	2BB-2-31-10	10																									
2	2BB-2-31-15	15																3600									
2	2BB-2-31-20	20																									
2	2BB-2-31-25	25																4400									
2	2BB-2-32-1	1																									
2	2BB-2-32-4	4																									
2	2BB-2-32-10	10																									
2	2BB-2-32-15	15																									
2	2BB-2-32-20	20																									
2	2BB-2-32-25	25																									
2	2BB-2-33-1	1																670									
2	2BB-2-33-4	4																680									
2	2BB-2-33-10	10																									
2	2BB-2-33-15	15																									
2	2BB-2-33-20	20																600									
2	2BB-2-33-25	25																									
2	2BB-2-34-1	1																									
2	2BB-2-34-4	4																120									
2	2BB-2-34-10	10																190									
2	2BB-2-34-15	15																									
2	2BB-2-34-20	20																									
2	2BB-2-34-25	25																									

Shaded cell indicates constituent result was
below the detection limit

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Dibenzofuran	Di-n-butyl phthalate	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	3,3'-Dichlorobenzidine	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate	4,6-Dinitro-2-methylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	2-Methylnaphthalene	2-Methylphenol
Detection Limit (ug/kg)			100	250	100	100	100	100	100	100	100	100	100	100	250	250	250	100	100	100	100	100	100	250	100	100	100
2	2BB-2-30-4	4																									
2	2BB-2-30-10	10																									
2	2BB-2-31-1	1																									
2	2BB-2-31-4	4																									
2	2BB-2-31-10	10																									
2	2BB-2-31-15	15																									
2	2BB-2-31-20	20																									
2	2BB-2-31-25	25																									
2	2BB-2-32-1	1																									
2	2BB-2-32-4	4																									
2	2BB-2-32-10	10																									
2	2BB-2-32-15	15																									
2	2BB-2-32-20	20																									
2	2BB-2-32-25	25																									
2	2BB-2-33-1	1																									
2	2BB-2-33-4	4																									
2	2BB-2-33-10	10																									
2	2BB-2-33-15	15																									
2	2BB-2-33-20	20																									
2	2BB-2-33-25	25																									
2	2BB-2-34-1	1																									
2	2BB-2-34-4	4																									
2	2BB-2-34-10	10																									
2	2BB-2-34-15	15																									
2	2BB-2-34-20	20																									
2	2BB-2-34-25	25																									

Shaded cell indicates constituent result was
below the detection limit

Shaded cell indicates constituent result was below the detection limit.

TABLE 5
CHEMICAL ANALYTICAL RESULTS:
SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	4-Methylphenol	Naphthalene	2-Nitroaniline	3-Nitroaniline	4-Nitroaniline	Nitrobenzene	2-Nitrophenol	4-Nitrophenol	N-Nitrosodiphenylamine	N-Nitroso-di-n-propylamine	N-Nitrosodimethylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	1,2,4-Trichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol
	Detection Limit (ug/kg)		100	100	250	250	250	100	100	100	100	100	100	250	100	100	100	100	100	100
2	2BB-2-30-4	4																		
2	2BB-2-30-10	10																		
2	2BB-2-31-1	1																		
2	2BB-2-31-4	4																		
2	2BB-2-31-10	10																		
2	2BB-2-31-15	15																		
2	2BB-2-31-20	20																		
2	2BB-2-31-25	25																		
2	2BB-2-32-1	1																		
2	2BB-2-32-4	4																		
2	2BB-2-32-10	10																		
2	2BB-2-32-15	15																		
2	2BB-2-32-20	20																		
2	2BB-2-32-25	25																		
2	2BB-2-33-1	1																		
2	2BB-2-33-4	4																		
2	2BB-2-33-10	10																		
2	2BB-2-33-15	15																		
2	2BB-2-33-20	20																		
2	2BB-2-33-25	25																		
2	2BB-2-34-1	1																		
2	2BB-2-34-4	4																		
2	2BB-2-34-10	10																		
2	2BB-2-34-15	15																		
2	2BB-2-34-20	20																		
2	2BB-2-34-25	25																		

Shaded cell indicates constituent result was
below the detection limit

Shaded cell indicates constituent result was below the detection limit.

TABLE 6
CHEMICAL ANALYTICAL RESULTS: TITLE 22 METALS

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample I.D.	Sample Depth (ft. bgs)	Antimony EPA 6010 (mg/kg)	Arsenic EPA 6010 (mg/kg)	Barium EPA 6010 (mg/kg)	Beryllium EPA 6010 (mg/kg)	Cadmium EPA 6010 (mg/kg)	Chromium VI EPA 7196 (mg/kg)	Chromium Tot. EPA 6010 (mg/kg)	Cobalt EPA 6010 (mg/kg)	Copper EPA 6010 (mg/kg)	Lead EPA 6010 (mg/kg)	Mercury EPA 7471 (mg/kg)	Molybdenum EPA 6010 (mg/kg)	Nickel EPA 6010 (mg/kg)	Selenium EPA 6010 (mg/kg)	Silver EPA 6010 (mg/kg)	Thallium EPA 6010 (mg/kg)	Vanadium EPA 6010 (mg/kg)	Zinc EPA 6010 (mg/kg)
	STLC Limits (mg/l)		15	5.0	100	0.75	1.0	5.0	560	80	25	5.0	0.2	350	20	1.0	5.0	7.0	24	250
	TTLC Limits (mg/kg)		500	500	10000	75	100	500	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000
	Detection Limit (mg/kg)		5.0	1.0	0.1	0.1	0.1	0.5	0.05	0.5	0.1	1.0	0.01	0.5	0.5	1.0	0.1	5.0	0.5	0.1
2	2BB-2-3-1	1			120				20	6.6	7.9				9.7				24	28
2	2BB-2-3-4	4			100				21	6.3	7.6				12				22	28
2	2BB-2-3-10	10			110				26	5.5	13				11				29	37
2	2BB-2-4-1	1			85				17	6.0	8.9				10				21	24
2	2BB-2-4-4	4			150				21	7.1	10				12				27	34
2	2BB-2-4-10	10			90				20	4.8	9.7				9.1				22	31
2	2BB-2-5-4	4			140				20	6.8	12				12				23	30
2	2BB-2-5-10	10			120				25	7.3	17				13				26	56
2	2BB-2-6-1	1			160				18	6.8	11				12				22	31
2	2BB-2-6-4	4			190				35	11	25				18				42	61
2	2BB-2-6-10	10			140				29	7.9	23				14				37	57
2	2BB-2-7-1	1			130				19	6.7	12				11				21	30
2	2BB-2-7-4	4			130				31	9.7	18				16				33	61
2	2BB-2-7-10	10			150				36	9.0	23				16				39	61
2	2BB-2-8-1	1			100				17	7.1	11				10				20	23
2	2BB-2-8-4	4			160				24	7.5	16				13				26	41
2	2BB-2-8-10	10			110				24	6.4	16				12				24	40
2	2BB-2-9-1	1			130				13	6.7	10				10				21	26
2	2BB-2-9-4	4			140				35	9.4	17				16				35	56
2	2BB-2-9-10	10			130				19	7.7	14				10				26	41
2	2BB-2-10-1	1			120				14	7.0	9.0				10				22	24
2	2BB-2-10-4	4			110				22	7.6	11				11				23	32
2	2BB-2-10-10	10			120				26	7.2	16				12				30	44
2	2BB-2-11A-1	1			84				13	5.8	6.7				8.9				16	21
2	2BB-2-11A-4	4			180				25	7.1	13				14				31	43
2	2BB-2-11A-10	10			110				22	6.5	11				11				24	41
2	2BB-2-11B-2.0	2.0			130				25	9.4	16	7.0			15				29	68
2	2BB-2-11B-5.0	5.0			130				24	7.8	12				14				30	32
2	2BB-2-11B-9.0	9.0			120				25	6.9	14				14				26	39
2	2BB-2-11B-19.0	19.0			45				17	4.1	7.7				7.3				16	26
2	2BB-2-11B-29.0	29.0			63				28	3.9	15				8.7				27	30
2	2BB-2-11B-39.0	39.0			110				35	47	22				13				24	47
2	2BB-2-11B-49.0	49.0			11				9.2	1.0	1.7				2.5				5.3	7.9
2	2BB-2-12-1	1			91				19	6.9	8				12				19	25
2	2BB-2-12-4	4			85				14	6.5	6.5				9.7				17	21
2	2BB-2-12-10	10			120				28	8.1	17				14				33	41
2	2BB-2-13-1	1			100				19	7.1	9.0				10				26	26
2	2BB-2-13-4	4			110				26	8.8	11				14				27	36
2	2BB-2-13-10	10			100				25	6.7	16				13				29	40
2	2BB-2-14-4	4			170				30	8.0	15				14				33	51
2	2BB-2-14-10	10			98				21	7.4	11				10				27	31
2	2BB-2-15-1	1			95				20	7.5	9.7				12				23	31
2	2BB-2-15-4	4			120				31	8.1	15				15				33	49
2	2BB-2-15-10	10			120				29	8.3	16				13				30	45

Shaded cell indicates constituent result was below the detection limit.

TABLE 6
CHEMICAL ANALYTICAL RESULTS: TITLE 22 METALS

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample I.D.	Sample Depth (ft. bgs)	Antimony EPA 6010 (mg/kg)	Arsenic EPA 6010 (mg/kg)	Barium EPA 6010 (mg/kg)	Beryllium EPA 6010 (mg/kg)	Cadmium EPA 6010 (mg/kg)	Chromium VI EPA 7196 (mg/kg)	Chromium Tot. EPA 6010 (mg/kg)	Cobalt EPA 6010 (mg/kg)	Copper EPA 6010 (mg/kg)	Lead EPA 6010 (mg/kg)	Mercury EPA 7471 (mg/kg)	Molybdenum EPA 6010 (mg/kg)	Nickel EPA 6010 (mg/kg)	Selenium EPA 6010 (mg/kg)	Silver EPA 6010 (mg/kg)	Thallium EPA 6010 (mg/kg)	Vanadium EPA 6010 (mg/kg)	Zinc EPA 6010 (mg/kg)
	STLC Limits (mg/l)		15	5.0	100	0.75	1.0	5.0	560	80	25	5.0	0.2	350	20	1.0	5.0	7.0	24	250
	TTLC Limits (mg/kg)		500	500	10000	75	100	500	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000
	Detection Limit (mg/kg)		5.0	1.0	0.1	0.1	0.1	0.5	0.05	0.5	0.1	1.0	0.01	0.5	0.5	1.0	0.1	5.0	0.5	0.1
2	2BB-2-16-1	1			130				24	9.1	31	23			13				30	70
2	2BB-2-16-4	4			120				24	8.9	13				13				28	37
2	2BB-2-16-10	10			110				23	7.0	12				10				26	38
2	2BB-2-17-1	1			71				17	5.9	7.1				9.5				20	24
2	2BB-2-17-4	4			140				25	8.8	14				17				33	45
2	2BB-2-17-10	10			94				23	7.4	13				12				28	44
2	2BB-2-18-1	1			110				22	8.2	13				12				33	40
2	2BB-2-18-4	4			71				24	7.0	14				12				27	41
2	2BB-2-18-10	10			120				31	7.3	19				12				35	61
2	2BB-2-20-1	1			120				18	6.9	11				11				23	29
2	2BB-2-20-4	4			130				31	8.6	20				17				37	44
2	2BB-2-20-10	10			120				26	6.9	15				11				29	47
2	2BB-2-21-1	1			180				28	7.8	15				16				32	50
2	2BB-2-21-4	4			140				18	6.8	9.4				11				24	27
2	2BB-2-21-10	10			120				26	6.4	16				13				30	45
2	2BB-2-22-1	1			140				29	8.2	13				15				28	34
2	2BB-2-22-4	4			120				29	9.1	16				15				32	39
2	2BB-2-22-10	10			84				21	5.2	10				9.2				21	35
2	2BB-2-22-15	15			77				18	4.1	8.4				7.1				20	25
2	2BB-2-22-20	20			29				13	1.4	1.8				4.0				14	16
2	2BB-2-22-25	25			31				17	2.9	1.9				6.1				18	23
2	2BB-2-23-1	1			98				19	7.5	10				12				26	27
2	2BB-2-23-4	4			150				33	8.5	18				16				36	42
2	2BB-2-23-10	10			130				33	8.5	20				15				37	52
2	2BB-2-23-20	20			32				13	2.8	2.7				5.0				16	17
2	2BB-2-23-25	25			29				19	2.4	3.8				8.2				18	23
2	2BB-2-24-1	1			120				27	7.7	20				15				34	39
2	2BB-2-24-4	4			92				26	6.9	15				14				30	38
2	2BB-2-24-10	10			110				25	7.5	19				13				28	45
2	2BB-2-25-1	1			120				31	7.2	15				16				35	45
2	2BB-2-25-4	4			120				28	8.0	15				14				33	41
2	2BB-2-25-10	10			100				27	7.5	15				14				31	42
2	2BB-2-26-1	1			110				27	7.3	14				16				36	43
2	2BB-2-26-4	4			110				14	6.9	12				12				27	38
2	2BB-2-26-10	10			140				3.0	6.6	68				13				35	51
2	2BB-2-27-1	1			120				30	6.9	15				14				32	41
2	2BB-2-27-4	4			130				28	7.4	15				14				33	41
2	2BB-2-27-10	10			110				28	7.0	17				13				32	45
2	2BB-2-28-1	1			100				19	6.2	11	8.6			10				19	40
2	2BB-2-28-4	4			120				20	7.4	12	2.7			11				24	43
2	2BB-2-28-10	10			110				21	7.2	13				12				22	33
2	2BB-2-29-1	1			120				21	7.3	9.6				12				22	34
2	2BB-2-29-4	4			130				25	8.8	11				14				30	44
2	2BB-2-29-10	10			100				29	6.9	12				19				33	39

Shaded cell indicates constituent result was below the detection limit.

TABLE 6
CHEMICAL ANALYTICAL RESULTS: TITLE 22 METALS

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample I.D.	Sample Depth (ft. bgs)	Antimony EPA 6010 (mg/kg)	Arsenic EPA 6010 (mg/kg)	Barium EPA 6010 (mg/kg)	Beryllium EPA 6010 (mg/kg)	Cadmium EPA 6010 (mg/kg)	Chromium VI EPA 7196 (mg/kg)	Chromium Tot. EPA 6010 (mg/kg)	Cobalt EPA 6010 (mg/kg)	Copper EPA 6010 (mg/kg)	Lead EPA 6010 (mg/kg)	Mercury EPA 7471 (mg/kg)	Molybdenum EPA 6010 (mg/kg)	Nickel EPA 6010 (mg/kg)	Selenium EPA 6010 (mg/kg)	Silver EPA 6010 (mg/kg)	Thallium EPA 6010 (mg/kg)	Vanadium EPA 6010 (mg/kg)	Zinc EPA 6010 (mg/kg)
	STLC Limits (mg/l)		15	5.0	100	0.75	1.0	5.0	560	80	25	5.0	0.2	350	20	1.0	5.0	7.0	24	250
	TTLC Limits (mg/kg)		500	500	10000	75	100	500	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000
	Detection Limit (mg/kg)		5.0	1.0	0.1	0.1	0.1	0.5	0.05	0.5	0.1	1.0	0.01	0.5	0.5	1.0	0.1	5.0	0.5	0.1
2	2BB-2-30-1	1			97				24	9.1	15				12				31	53
2	2BB-2-30-4	4			120				19	7.1	10				11				21	32
2	2BB-2-30-10	10			94				18	4.6	11				8.7				26	28
2	2BB-2-31-1	1			140				26	7.3	11				14				25	31
2	2BB-2-31-4	4			140				26	7.8	14				14				33	40
2	2BB-2-31-10	10			130				27	7.6	16				13				32	45
2	2BB-2-31-15	15			71				18	4.8	10				8.7				22	28
2	2BB-2-31-20	20			25				14	2.0	1.0				5.4				15	17
2	2BB-2-31-25	25			29				11	2.5	2.9				5.0				11	19
2	2BB-2-32-1	1			160				33	11	17				19				31	46
2	2BB-2-32-4	4			180				23	7.7	13				13				25	39
2	2BB-2-32-10	10			120				29	8.2	16				14				31	57
2	2BB-2-32-15	15			47				11	2.0	5.6				4.4				12	21
2	2BB-2-32-20	20			43				13	2.5	2.7				7.5				12	18
2	2BB-2-32-25	25			22				11	1.7	2.4				3.6				13	18
2	2BB-2-33-1	1			85				18	6.6	6.8				8.8				17	26
2	2BB-2-33-4	4			120				28	6.9	12				16				27	40
2	2BB-2-33-10	10			110				23	6.1	13				10				23	46
2	2BB-2-33-15	15			110				18	6.3	15				11				20	42
2	2BB-2-33-20	20			48				12	2.4	4.6				5.6				13	20
2	2BB-2-33-25	25			29				12	2.7	1.8				5.1				14	18
2	2BB-2-34-1	1			180				28	4.6	16				12				26	25
2	2BB-2-34-4	4			160				32	8.0	17				19				31	50
2	2BB-2-34-10	10			110				30	7.8	17				13				30	54
2	2BB-2-34-15	15			83				17	6.1	11				8.6				19	33
2	2BB-2-34-20	20			47				12	2.4	5.1				5.8				13	24
2	2BB-2-34-25	25			21				10	1.9	1.8				4.7				13	16
6	2BB-6-1-4	4			99				25	5.7	14				11				30	41
6	2BB-6-1-10	10			100				25	7.6	18				15				30	46
6	2BB-6-1-20	20			79				22	4.1	12				10				22	31
6	2BB-6-1-30	30			28				9.3	4.5	2.7				7.4				12	17
6	2BB-6-1-40	40			28				17	5.1	7.5				8.5				20	26
6	2BB-6-1-50	50			30				17	4.5	8.5				8.2				18	27
6	2BB-6-2-1	1			99				25	9.5	17				13				25	38
6	2BB-6-2-4	4			89				31	8.5	21				15				32	59
6	2BB-6-2-10	10			66				31	8.0	22				14				31	49
6	2BB-6-2-20	20			83				13	6.3	15				7.7				23	30
6	2BB-6-2-30	30			29				11	2.3	2.9				5.4				14	16
6	2BB-6-2-40	40			23				12	4.4	7.2				6.9				18	20
6	2BB-6-2-50	50			68				31	7.2	19				13				43	44
6	2BB-6-3-1	1			95				15	8.4	13				11				23	110
6	2BB-6-3-4	4			130				27	8.5	18				15				35	45
6	2BB-6-3-10	10			100				19	6.1	15				10				24	34
6	2BB-6-3-20	20			70				14	4.0	9.4				6.8				19	23

Shaded cell indicates constituent result was below the detection limit.

TABLE 6
CHEMICAL ANALYTICAL RESULTS: TITLE 22 METALS

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample I.D.	Sample Depth (ft. bgs)	Antimony EPA 6010 (mg/kg)	Arsenic EPA 6010 (mg/kg)	Barium EPA 6010 (mg/kg)	Beryllium EPA 6010 (mg/kg)	Cadmium EPA 6010 (mg/kg)	Chromium VI EPA 7196 (mg/kg)	Chromium Tot. EPA 6010 (mg/kg)	Cobalt EPA 6010 (mg/kg)	Copper EPA 6010 (mg/kg)	Lead EPA 6010 (mg/kg)	Mercury EPA 7471 (mg/kg)	Molybdenum EPA 6010 (mg/kg)	Nickel EPA 6010 (mg/kg)	Selenium EPA 6010 (mg/kg)	Silver EPA 6010 (mg/kg)	Thallium EPA 6010 (mg/kg)	Vanadium EPA 6010 (mg/kg)	Zinc EPA 6010 (mg/kg)
	STLC Limits (mg/l)		15	5.0	100	0.75	1.0	5.0	560	80	25	5.0	0.2	350	20	1.0	5.0	7.0	24	250
	TTLC Limits (mg/kg)		500	500	10000	75	100	500	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000
	Detection Limit (mg/kg)		5.0	1.0	0.1	0.1	0.1	0.5	0.05	0.5	0.1	1.0	0.01	0.5	0.5	1.0	0.1	5.0	0.5	0.1
6	2BB-6-3-30	30			20				11	2.3	1.9				4.9				12	17
6	2BB-6-3-40	40			53				25	4.9	11				12				22	34
6	2BB-6-3-50	50			36				17	4.0	9.3				9.0				19	29
6	2BB-6-4-4	4			140				24	7.6	17				14				29	42
6	2BB-6-4-10	10			97				28	7.2	16				12				29	44
6	2BB-6-4-20	20			48				14	3.9	6.9				6.9				18	20
6	2BB-6-4-30	30			20				12	3.9	2.6				5.6				11	16
6	2BB-6-4-40	40			19				10	3.3	4.9				6.5				12	18
6	2BB-6-4-55	55			11				10	1.2	1.8				4.0				7.0	8.9
6	2BB-6-5-1.5	1.5			130				26	7.3	17				13				29	42
6	2BB-6-5-5.0	5			160				26	8.0	14				13				29	43
6	2BB-6-5-9.0	9			110				24	6.9	11				10				29	42
6	2BB-6-5-19.0	19			120				44	7.6	15				18				35	55
6	2BB-6-5-29.0	29			25				16	3.8	3.6				7.3				16	24
6	2BB-6-5-39.0	39			27				15	3.4	6.6				6.7				14	19
6	2BB-6-5-49.0	49			36				25	4.4	8.0				11				19	26
6	2BB-6-6-2.0	2			100				25	8.6	12				11				24	34
6	2BB-6-6-5.0	5			150				35	8.7	20				17				36	49
6	2BB-6-6-10.0	10			130				30	9.0	19				15				34	53
6	2BB-6-6-19.0	19			68				29	3.9	8.8				11				30	32
6	2BB-6-6-29.0	29			20				12	2.7	4.0				6.0				13	18
6	2BB-6-6-39.0	39			43				27	5.5	12				12				26	35
6	2BB-6-6-50.5	50.5			19				11	1.2	1.5				3.2				6.4	5.8
6	2BB-6-8-1	1			93				28	6.4	11				11				30	35
6	2BB-6-8-4	4			130				21	6.4	12				11				23	38
6	2BB-6-8-10	10			140				26	7.0	14				12				24	45
6	2BB-6-8-15	15			110				25	8.4	20				14				33	52
6	2BB-6-8-20	20			81				20	4.3	13				11				22	29
6	2BB-6-8-25	25			24				11	1.9	3.6				6.1				16	15
6	2BB-6-9-1	1			73				25	7.5	10				13				30	36
6	2BB-6-9-4	4			130				18	6.5	8.9				8.3				24	28
6	2BB-6-9-10	10			83				33	8.2	20				13				35	46
6	2BB-6-9-15	15			100				20	8.0	13				10				24	39
6	2BB-6-9-20	20			75				22	5.1	11				7.9				26	31
6	2BB-6-9-25	25			37				16	2.0	3.3				4.9				16	17
6	2BB-6-10-1	1			91				21	6.8	11				11				27	33
6	2BB-6-10-4	4			120				33	7.2	11				13				30	41
6	2BB-6-10-10	10			94				22	7.1	14				11				24	36
6	2BB-6-10-15	15			150				33	10	20				16				40	58
6	2BB-6-10-20	20			84				21	4.8	8.5				9.3				25	27
6	2BB-6-10-25	25			33				11	2.6	2.8				4.3				14	18
6	2BB-6-11A-1	1			94				22	8.4	12				11				28	35
6	2BB-6-11A-4	4			130				29	8.2	11				14				31	39
6	2BB-6-11A-10	10			120				30	7.8	17				13				30	45

Shaded cell indicates constituent result was below the detection limit.

TABLE 6
CHEMICAL ANALYTICAL RESULTS: TITLE 22 METALS

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample I.D.	Sample Depth (ft. bgs)	Antimony EPA 6010 (mg/kg)	Arsenic EPA 6010 (mg/kg)	Barium EPA 6010 (mg/kg)	Beryllium EPA 6010 (mg/kg)	Cadmium EPA 6010 (mg/kg)	Chromium VI EPA 7196 (mg/kg)	Chromium Tot. EPA 6010 (mg/kg)	Cobalt EPA 6010 (mg/kg)	Copper EPA 6010 (mg/kg)	Lead EPA 6010 (mg/kg)	Mercury EPA 7471 (mg/kg)	Molybdenum EPA 6010 (mg/kg)	Nickel EPA 6010 (mg/kg)	Selenium EPA 6010 (mg/kg)	Silver EPA 6010 (mg/kg)	Thallium EPA 6010 (mg/kg)	Vanadium EPA 6010 (mg/kg)	Zinc EPA 6010 (mg/kg)
	STLC Limits (mg/l)		15	5.0	100	0.75	1.0	5.0	560	80	25	5.0	0.2	350	20	1.0	5.0	7.0	24	250
	TTLC Limits (mg/kg)		500	500	10000	75	100	500	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000
	Detection Limit (mg/kg)		5.0	1.0	0.1	0.1	0.1	0.5	0.05	0.5	0.1	1.0	0.01	0.5	0.5	1.0	0.1	5.0	0.5	0.1
6	2BB-6-11B-15	15			120				38	8.3	21				14				37	59
6	2BB-6-11B-20	20			84				17	3.7	9.4				7.6				21	26
6	2BB-6-11B-25	25			59				20	4.8	8.7				7.3				26	28
6	2BB-6-12-1	1			60				21	7.3	8.5				11				24	28
6	2BB-6-12-4	4			130				27	6.9	11				14				26	40
6	2BB-6-12-10	10			140				34	7.9	16				15				38	49
6	2BB-6-12-15	15			140				28	8.2	18				13				31	51
6	2BB-6-12-20	20			100				26	6.5	14				12				24	40
6	2BB-6-12-25	25			54				18	4.2	6.0				8.4				20	27
6	2BB-6-13-1	1			120				25	7.0	9.1				12				33	31
6	2BB-6-13-4	4			120				20	7.3	8.8				11				26	37
6	2BB-6-13-10	10			54				18	6.1	7.8				9.4				23	31
6	2BB-6-13-15	15			120				27	8.8	16				14				33	56
6	2BB-6-13-20	20			56				16	2.6	6.1				5.8				18	23
6	2BB-6-13-25	25			22				10	1.6	0.65				18				9.7	14
6	2BB-6-14-1	1			83				20	7.6	9.9				13				25	28
6	2BB-6-14-4	4			140				24	9.2	16				13				34	48
6	2BB-6-14-10	10			99				26	8.4	15				13				32	46
6	2BB-6-14-15	15			110				29	8.4	20				14				35	54
6	2BB-6-14-21	21			35				11	2.3	3.3				4.4				15	16
6	2BB-6-14-25	25			35				15	2.6	2.8				5.2				18	20
6	2BB-6-15-1	1			130				27	7.9	10				15				26	35
6	2BB-6-15-4	4			160				18	9.1	15				13				24	44
6	2BB-6-15-10	10			92				32	8.6	20				16				34	55
6	2BB-6-15-15	15			120				33	9.1	20				16				37	61
6	2BB-6-15-20	20			110				33	7.0	19				12				33	54
6	2BB-6-15-25	25			84				22	4.9	11				11				25	31
6	2BB-6-16-1	1			79				22	7.7	9.4				12				27	30
6	2BB-6-16-4	4			200				20	6.7	8.5				13				29	32
6	2BB-6-16-10	10			140				37	9.0	18				16				39	63
6	2BB-6-16-15	15			120				34	8.2	16				15				35	63
6	2BB-6-16-20	20			110				19	5.6	14				12				25	38
6	2BB-6-16-25	25			69				16	6.3	7.7				9.0				24	27
6	2BB-6-17-2.0	2			150				32	8.1	12				17				35	38
6	2BB-6-17-5.0	5			150				37	8.8	23				17				39	52
6	2BB-6-17-9.0	9			130				33	8.4	17				14				37	53
6	2BB-6-17-19.0	19			100				30	7.7	20				16				34	48
6	2BB-6-17-29.0	29			19				8.6	1.9	1.5				3.9				8.7	13
6	2BB-6-17-39.0	39			16				9.2	2.0	4.2				4.6				10	15
6	2BB-6-17-49.0	49			58				34	8.3	16				20				34	52

Shaded cell indicates constituent result was below the detection limit

Shaded cell indicates constituent result was below the detection limit.

TABLE 7
CHEMICAL ANALYTICAL RESULTS: POLYCHLORINATED BIPHENYLS
(EPA Method 8080)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
Detection Limit (ug/kg)			20	20	20	20	20	20	20
2	2BB-2-1-1	1							
2	2BB-2-1-4	4							
2	2BB-2-1-10	10							
2	2BB-2-2-1	1							
2	2BB-2-2-4	4							
2	2BB-2-2-10	10							
2	2BB-2-11B-2.0	2							
2	2BB-2-11B-5.0	5							
2	2BB-2-11B-9.0	9							
2	2BB-2-11B-19.0	19							
2	2BB-2-11B-29.0	29							
2	2BB-2-11B-39.0	39							
2	2BB-2-11B-49.0	49							
2	2BB-2-22-1	1							
2	2BB-2-22-4	4							
2	2BB-2-22-10	10							
2	2BB-2-22-15	15							
2	2BB-2-22-20	20							
2	2BB-2-22-25	25							
2	2BB-2-23-4	4							
2	2BB-2-23-1	1							
2	2BB-2-23-10	10							
2	2BB-2-23-15	15							
2	2BB-2-23-20	20							
2	2BB-2-23-25	25							
2	2BB-2-24-1	1							
2	2BB-2-24-4	4							
2	2BB-2-24-10	10							
2	2BB-2-31-1	1							
2	2BB-2-31-4	4							
2	2BB-2-31-10	10							
2	2BB-2-31-15	15							
2	2BB-2-31-20	20							
2	2BB-2-31-25	25							
2	2BB-2-32-1	1							
2	2BB-2-32-4	4							
2	2BB-2-32-10	10							
2	2BB-2-32-15	15							
2	2BB-2-32-20	20							
2	2BB-2-32-25	25							

Shaded cell indicates constituent result was below the detection limit.
BRC C-6 2BB Study
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TABLE 7
CHEMICAL ANALYTICAL RESULTS: POLYCHLORINATED BIPHENYLS
(EPA Method 8080)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
6	2BB-6-1-4	4							
6	2BB-6-1-10	10							
6	2BB-6-1-20	20							
6	2BB-6-1-30	30							
6	2BB-6-1-40	40							
6	2BB-6-1-50	50							
6	2BB-6-2-1	1							
6	2BB-6-2-4	4							
6	2BB-6-2-10	10							
6	2BB-6-2-20	20							
6	2BB-6-2-30	30							
6	2BB-6-2-40	40							
6	2BB-6-2-50	50							
6	2BB-6-3-1	1							
6	2BB-6-3-4	4							
6	2BB-6-3-10	10							
6	2BB-6-3-20	20							
6	2BB-6-3-30	30							
6	2BB-6-3-40	40							
6	2BB-6-3-50	50							
6	2BB-6-4-4	4							
6	2BB-6-4-10	10							
6	2BB-6-4-20	20							
6	2BB-6-4-30	30							
6	2BB-6-4-40	40							
6	2BB-6-4-55	55							
6	2BB-6-5-1.5	1.5							
6	2BB-6-5-5.0	5							
6	2BB-6-5-9.0	9							
6	2BB-6-5-19.0	19							
6	2BB-6-5-29.0	29							
6	2BB-6-5-39.0	39							
6	2BB-6-5-49.0	49							
6	2BB-6-6-2.0	2							
6	2BB-6-6-5.0	5							
6	2BB-6-6-10.0	10							
6	2BB-6-6-19.0	19							
6	2BB-6-6-29.0	29							
6	2BB-6-6-39.0	39							
6	2BB-6-6-50.5	50.5							
6	2BB-6-9-1	1							

Shaded cell indicates constituent result was below the detection limit.

TABLE 7
CHEMICAL ANALYTICAL RESULTS: POLYCHLORINATED BIPHENYLS
(EPA Method 8080)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
6	2BB-6-9-4	4							
6	2BB-6-9-10	10							
6	2BB-6-9-15	15							
6	2BB-6-9-20	20							
6	2BB-6-9-25	25							
6	2BB-6-10-1	1							
6	2BB-6-10-4	4							
6	2BB-6-10-10	10							
6	2BB-6-10-15	15							
6	2BB-6-10-20	20							
6	2BB-6-10-25	25							
6	2BB-6-11A-1	1							
6	2BB-6-11A-4	4							
6	2BB-6-11A-10	10							
6	2BB-6-11B-15	15							
6	2BB-6-11B-20	20							
6	2BB-6-11B-25	25							
6	2BB-6-12-1	1							
6	2BB-6-12-4	4							
6	2BB-6-12-10	10							
6	2BB-6-12-15	15							
6	2BB-6-12-20	20							
6	2BB-6-12-25	25							
6	2BB-6-13-1	1							
6	2BB-6-13-4	4							
6	2BB-6-13-10	10							
6	2BB-6-13-15	15							
6	2BB-6-13-20	20							
6	2BB-6-13-25	25							
6	2BB-6-14-1	1							
6	2BB-6-14-4	4							
6	2BB-6-14-10	10							
6	2BB-6-14-15	15							
6	2BB-6-14-21	21							
6	2BB-6-14-25	25							
6	2BB-6-15-1	1							
6	2BB-6-15-4	4							
6	2BB-6-15-10	10							
6	2BB-6-15-15	15							
6	2BB-6-15-20	20							
6	2BB-6-15-25	25							

Shaded cell indicates constituent result was below the detection limit.

TABLE 7
CHEMICAL ANALYTICAL RESULTS: POLYCHLORINATED BIPHENYLS
(EPA Method 8080)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
6	2BB-6-16-1	1							
6	2BB-6-16-4	4							
6	2BB-6-16-10	10							
6	2BB-6-16-15	15							
6	2BB-6-16-20	20							
6	2BB-6-16-25	25							
6	2BB-6-17-2.0	2							
6	2BB-6-17-5.0	5							
6	2BB-6-17-9.0	9							
6	2BB-6-17-19.0	19							
6	2BB-6-17-29.0	29							
6	2BB-6-17-39.0	39							
6	2BB-6-17-49.0	49							

Shaded cell indicates constituent result was below the detection limit

TABLE 8
CHEMICAL ANALYTICAL RESULTS: PESTICIDES
(EPA Method 8080)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Sample ID	Depth (ft bgs)	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
	Detection Limit (ug/kg)		1.0	1.0	1.0	2.0	1.0	10.0	2.0	1.0	2.0	1.0	2.0	1.0	10.0	2.0	3.0	1.0	1.0	30.0	35.0
2	2BB-2-33-1	1																			
2	2BB-2-33-4	4																			
2	2BB-2-33-10	10																			
2	2BB-2-33-15	15																			
2	2BB-2-33-20	20																			
2	2BB-2-33-25	25																			
2	2BB-2-35-1	1																			
2	2BB-2-35-4	4																			
2	2BB-2-35-10	10																			
2	2BB-2-35-15	15																			
2	2BB-2-35-20	20																			
2	2BB-2-35-25	25																			

Shaded cell indicates constituent result was below the detection limit

TABLE 9
SUMMARY OF RESULTS OF QA/QC ANALYSIS FOR
VOLATILE ORGANIC COMPOUNDS (EPA Method 8260)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Sample Number	Date Sampled	Onsite Laboratory (µg/kg)	Stationary Laboratory (µg/kg)		
		TCE	PCE	Toluene	TCE
Detection Limit		5.0	2.5	2.5	2.5
2BB-2-26-1	4/10/97				
2BB-2-23-4	4/10/97				
2BB-2-22-1	4/11/97				
2BB-2-31-20	4/11/97				
2BB-2-33-10	4/11/97				
2BB-2-35-4	4/14/97				
2BB-2-1-10	4/14/97				
2BB-2-4-4	4/14/97				
2BB-2-3-10	4/14/97				
2BB-2-12-1	4/15/97				
2BB-2-15-10	4/15/97				
2BB-6-8-1	4/16/97				
2BB-6-10-20	4/17/97				
2BB-6-14-1	4/17/97				
2BB-6-15-20	4/18/97				
2BB-6-16-15	4/18/97				
2BB-6-6-5	4/24/97				
2BB-6-17-39.5	4/24/97				
2BB-6-1-10	4/23/97				
2BB-6-1-20	4/23/97				
2BB-6-1-30	4/23/97				
2BB-6-1-4	4/23/97				
2BB-6-1-40	4/23/97	15			
2BB-6-1-50	4/23/97	52			
2BB-6-2-1	4/23/97		16		19
2BB-6-2-4	4/23/97	9.6			
2BB-6-2-10	4/23/97				
2BB-6-2-20	4/23/97	9.1			
2BB-6-2-30	4/23/97				
2BB-6-2-40	4/23/97	16			
2BB-6-2-50	4/23/97	19		3	
2BB-6-3-1	4/23/97	23		3.3	15
2BB-6-3-4	4/23/97				
2BB-6-3-10	4/23/97	13			
2BB-6-3-20	4/23/97	5.9			
2BB-6-3-30	4/23/97				
2BB-6-3-40	4/23/97	34			
2BB-6-3-50	4/23/97	6.2			
2BB-6-4-4	4/23/97	17			
2BB-6-4-10	4/23/97	33			
2BB-6-4-20	4/23/97	16			
2BB-6-4-30	4/23/97	34			
2BB-6-4-40	4/23/97	15			
2BB-6-4-55	4/23/97	13			

LEGEND:
TCE - Trichloroethene
PCE - Tetrachloroethene
Shaded cell indicates constituent result was below detection limit.
Table shows only constituents that had at least one detection in the above samples.

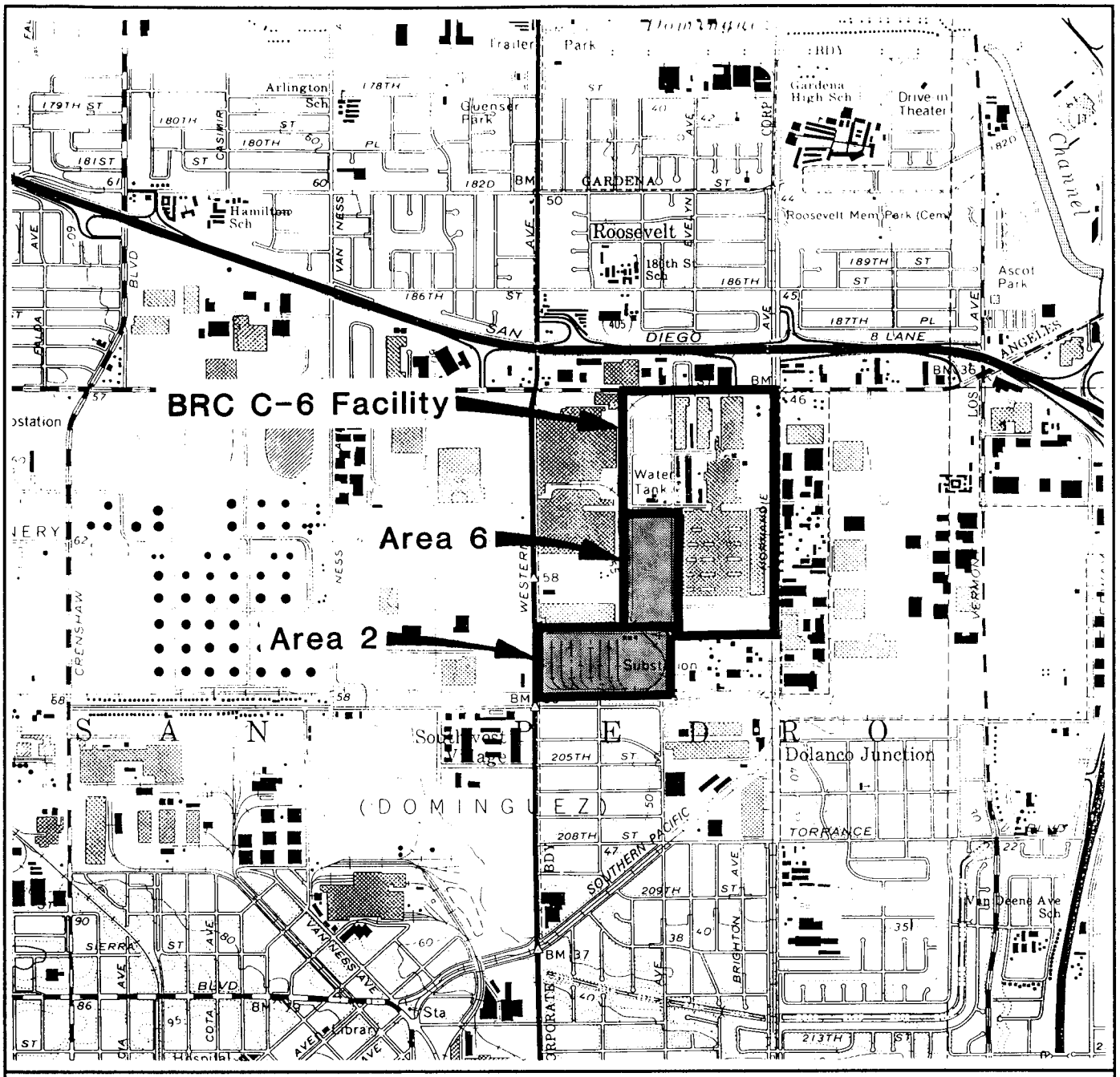
TABLE 10
SUMMARY OF RESULTS OF QA/QC ANALYSIS FOR
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
(EPA Method 418.1)

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Sample No.	Date Sampled	Laboratory Results (mg/kg)		
		Onsite		Stationary
Detection Limit		20	10	8
2BB-2-29-10	4/10/97			
2BB-2-23-25	4/10/97			
2BB-2-22-25	4/11/97			9
2BB-2-33-1	4/11/97			26
2BB-2-34-25	4/11/97			10
2BB-2-6-1	4/14/97			19
2BB-2-9-1	4/15/97			21
2BB-2-18-10	4/15/97			14
2BB-6-13-20	4/17/97			
2BB-6-15-20	4/18/97			
2BB-6-3-20	4/23/97			
2BB-6-4-20	4/23/97			
2BB-6-5-19	4/24/97			57
2BB-6-6-19	4/24/97			73
2BB-6-17-49	4/24/97			
2BB-6-1-4	4/23/97			
2BB-6-1-10	4/23/97			
2BB-6-1-20	4/23/97			
2BB-6-1-30	4/23/97			15
2BB-6-1-40	4/23/97			10
2BB-6-1-50	4/23/97			10
2BB-6-2-1	4/23/97			
2BB-6-2-4	4/23/97			
2BB-6-2-10	4/23/97			13
2BB-6-2-20	4/23/97			19
2BB-6-2-30	4/23/97			13
2BB-6-2-40	4/23/97			11
2BB-6-2-50	4/23/97			16
2BB-6-3-1	4/23/97			
2BB-6-3-4	4/23/97			
2BB-6-3-10	4/23/97			
2BB-6-3-20	4/23/97			
2BB-6-3-30	4/23/97			48
2BB-6-3-40	4/23/97			15
2BB-6-3-50	4/23/97			
2BB-6-4-4	4/23/97			
2BB-6-4-10	4/23/97			19
2BB-6-4-20	4/23/97			20
2BB-6-4-30	4/23/97			
2BB-6-4-40	4/23/97			35
2BB-6-4-55	4/23/97			

Shaded cell indicates constituent result was below detection limit.

Figures



Source: Basemap modified from
U.S.G.S. Torrance, California
7.5 Minute Quadrangle
Photorevised 1981

0 2000 4000

Approximate Scale in Feet

N

Kennedy/Jenks Consultants

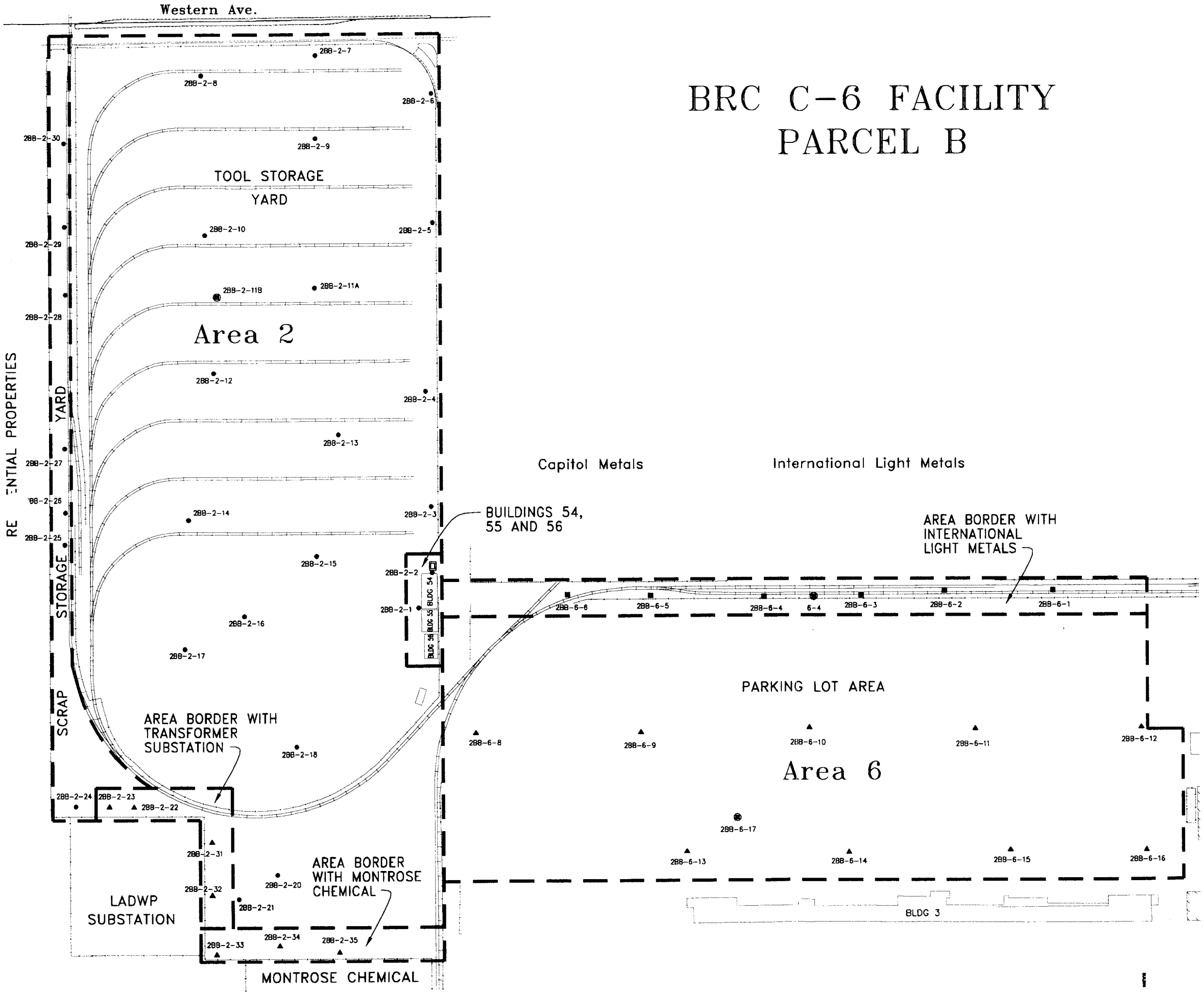
BRC C-6 Facility
Los Angeles, California

Site Location Map

October 1997
K/J 974002.00

Figure 1

BRC C-6 FACILITY
PARCEL B



Soil Borings

- ● 10 Foot TD
- ▲ 25 Foot TD
- ■ 50 Foot TD
- ◉ 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Parcel B
Boring Locations

October 1997
K/J 974002.00

Figure 2

BOE-C6-0026775

WESTERN AVE.

190 TH. ST.

NORMANDIE AVE.

AREA 2

AREA 6

POWER SUB STATION

54
55
56

2BB-2-11B

2BB-6-17

6-4

5-4

1A-5A

1A-17

SA-NW-5

SA-NE-8

3-1

3-2

5-20

1-38

1-26

36-14

A

A'

B

B'

C

C'

15
14
13
11
4
60A
18
60
60B
3
19
20
58
67
29
57
2
32
61
61A
33
34
1
59A
59
36
37
40
CRS
41
66
66-1
45
43

0 400 800

Approximate Scale: 1"=400'

N

LEGEND

1-26 ◎ CONTINUOUS CORE BORING

2-11 ◉ CONTINUOUS CORE BORING IN AREAS 2 AND 6

GENERALIZED CROSS-SECTION LOCATION

A - A' Figure 3
B - B' Figure 4
C - C' Figure 5

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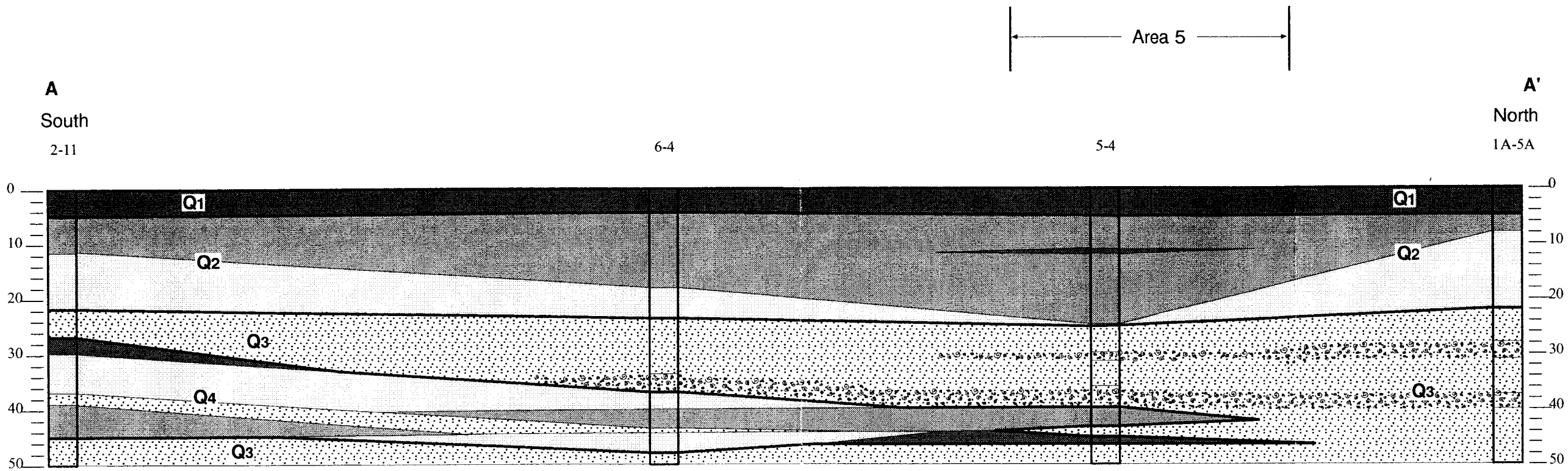
BRC C-6 Facility
Los Angeles, California

Continuous Core Boring and Cross-Section Locations

October 1997
K/J 974002.00

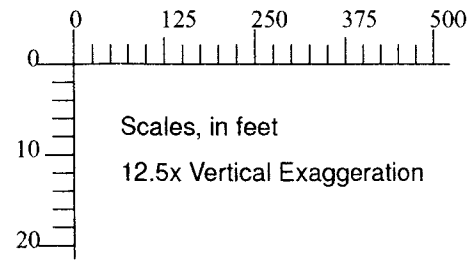
Figure 3

BOE-C6-0026776



EXPLANATION

	CL/CH	Clay, Silty Clay, or Sandy Clay
	ML	Silt, Clayey Silt, or Sandy Silt
	SM	Silty Sand
	SP/SW	Sand
	SP	Shell Beds in Sand



Scales, in feet

12.5x Vertical Exaggeration

Notes:

Stratigraphy is inferred based on the four soil boring control points shown.
Baseline does not portray the minor differences in elevation between soil borings.

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BRC C-6 Facility
Los Angeles, California

Cross-Section A-A'

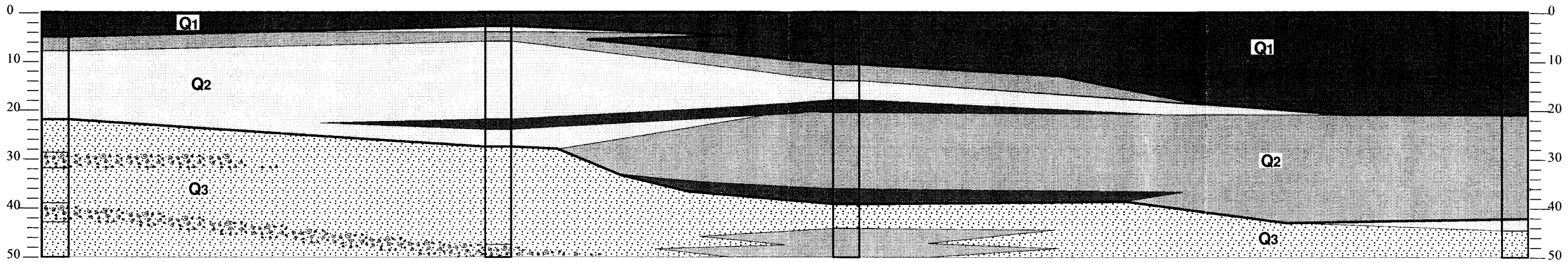
October 1997
K/J 974002.00

Figure 4

B **B'**

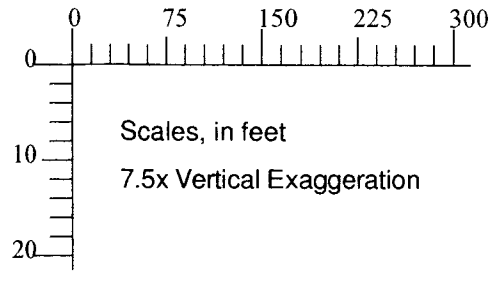
West East

1A-5A 1A-17 SA-NW-5 SA-NE-8



EXPLANATION

	CL/CH	Clay, Silty Clay, or Sandy Clay
	ML	Silt, Clayey Silt, or Sandy Silt
	SM	Silty Sand
	SP/SW	Sand
	SP	Shell Beds in Sand



Notes:

Stratigraphy is inferred based on the four soil boring control points shown.
Baseline does not portray the minor differences in elevation between soil borings.

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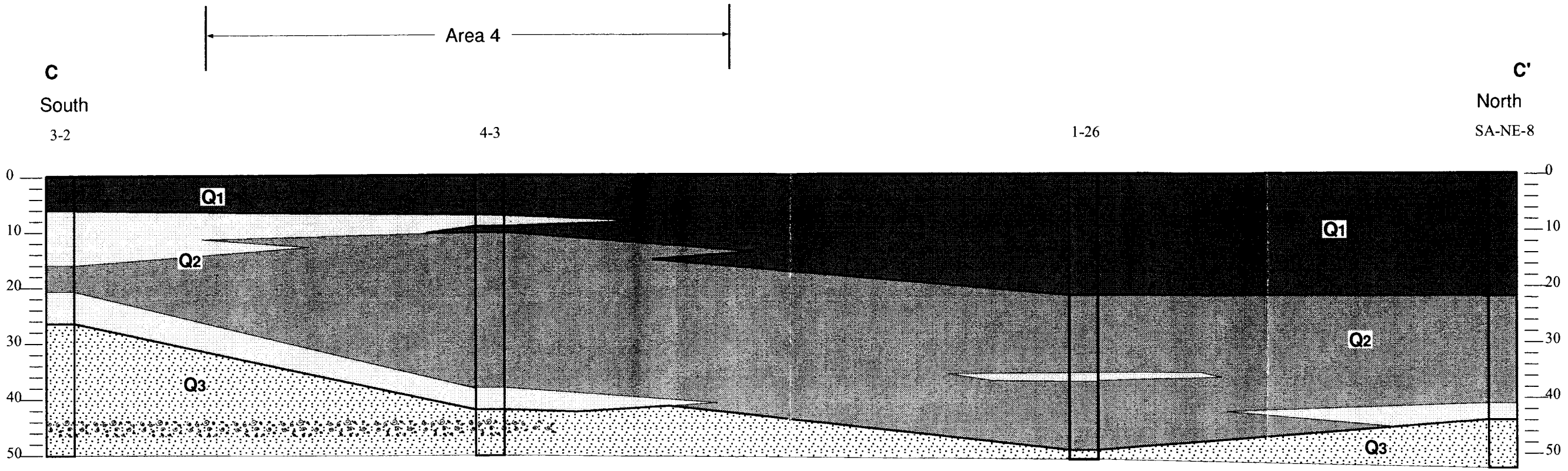
BRC C-6 Facility
Los Angeles, California

Cross-Section B-B'

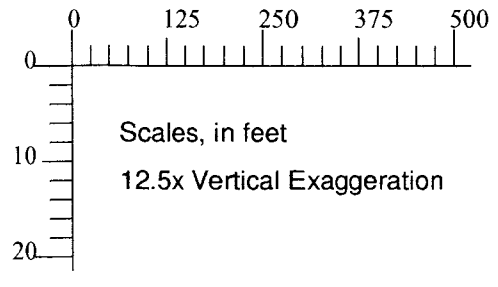
October 1997
K/J 974002.00

Figure 5



EXPLANATION

CL/CH	Clay, Silty Clay, or Sandy Clay
ML	Silt, Clayey Silt, or Sandy Silt
SM	Silty Sand
SP/SW	Sand
SP	Shell Beds in Sand



Notes:

Stratigraphy is inferred based on the four soil boring control points shown.
Baseline does not portray the minor differences in elevation between soil borings.

Kennedy/ Jenks Consultants

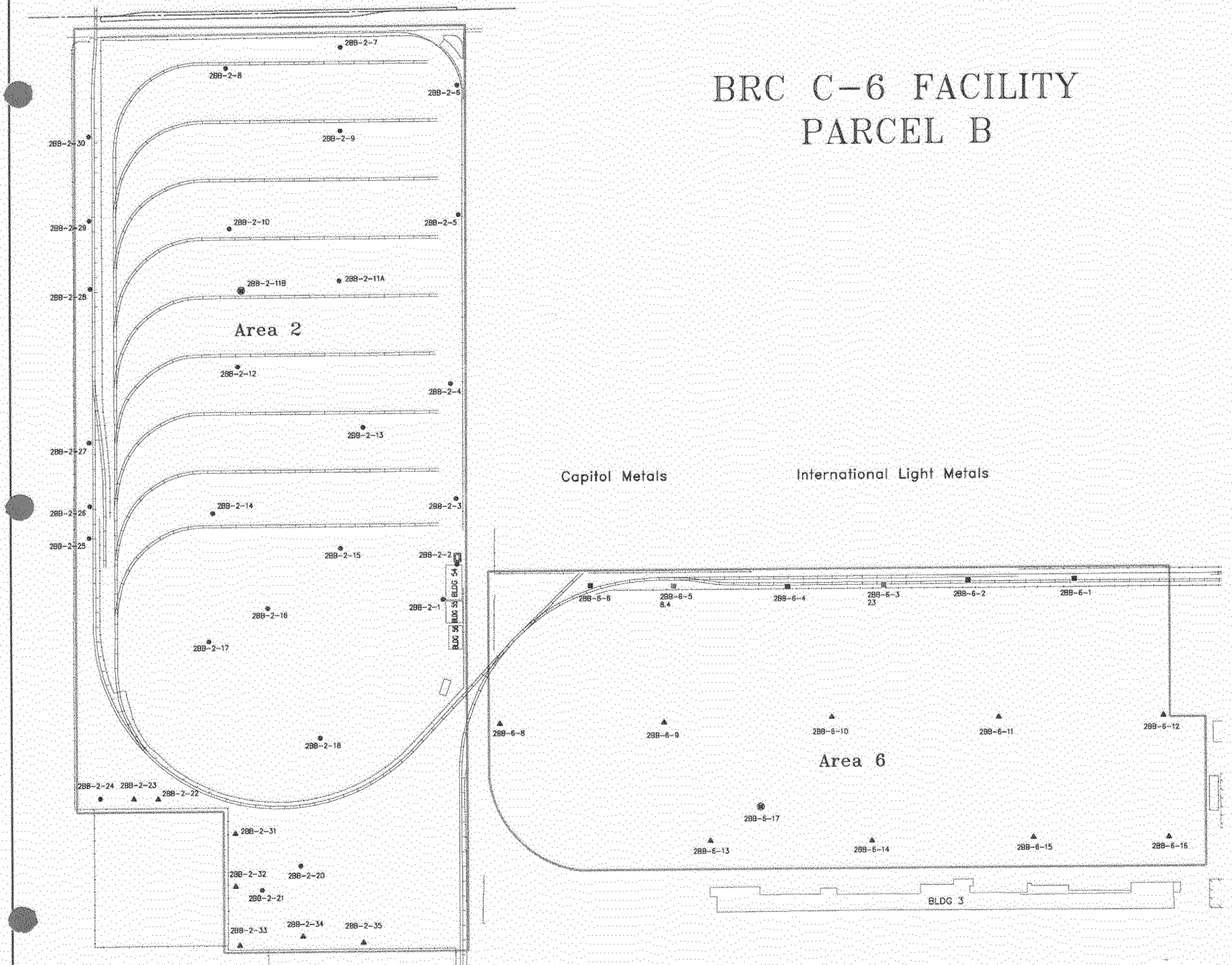
BRC C-6 Facility
Los Angeles, California

Cross-Section C-C'

October 1997
K/J 974002.00

Figure 6

BRC C-6 FACILITY
PARCEL B



LEGEND

TCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED

Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

TCE Detections
1 & 2-Foot Samples

October 1997
K/J 974002.00

Figure 7A

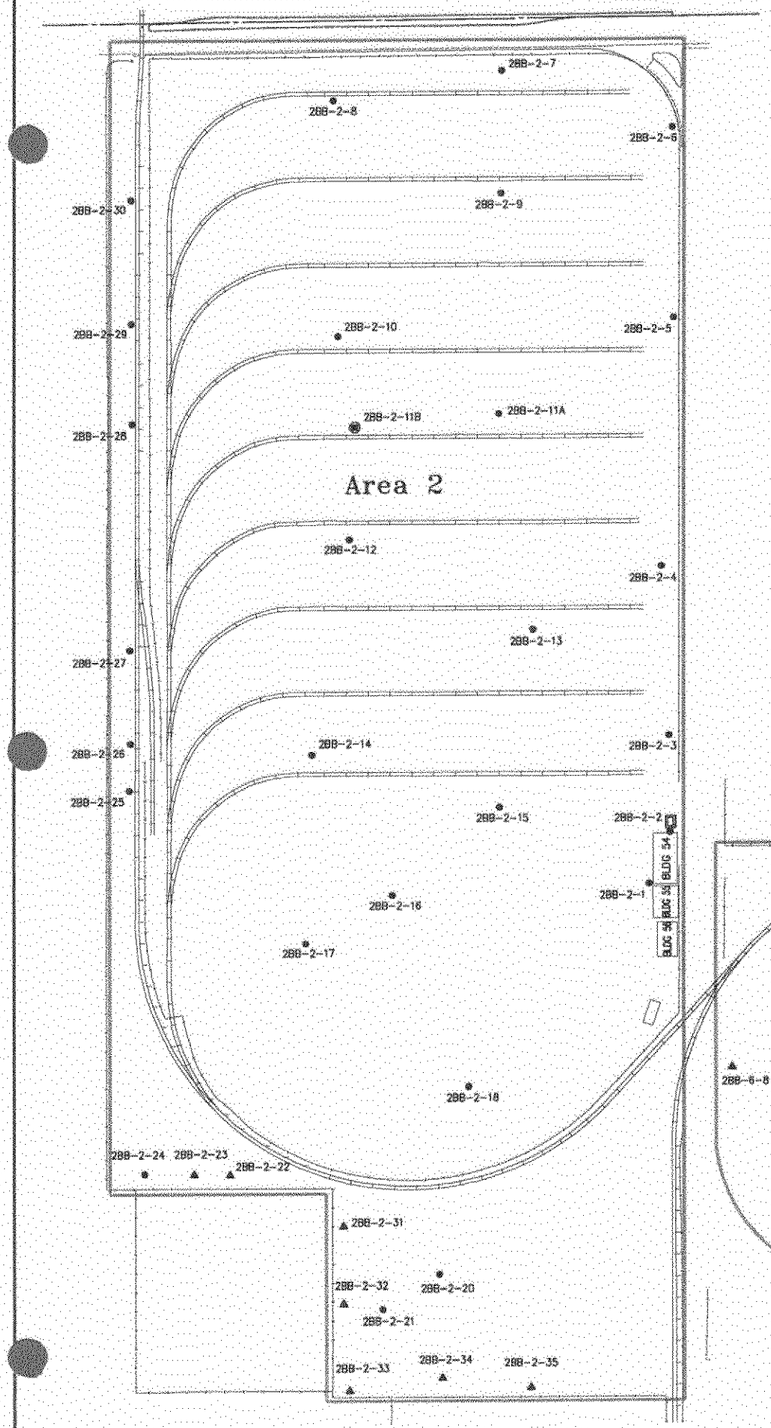
BRC C-6 FACILITY
PARCEL B

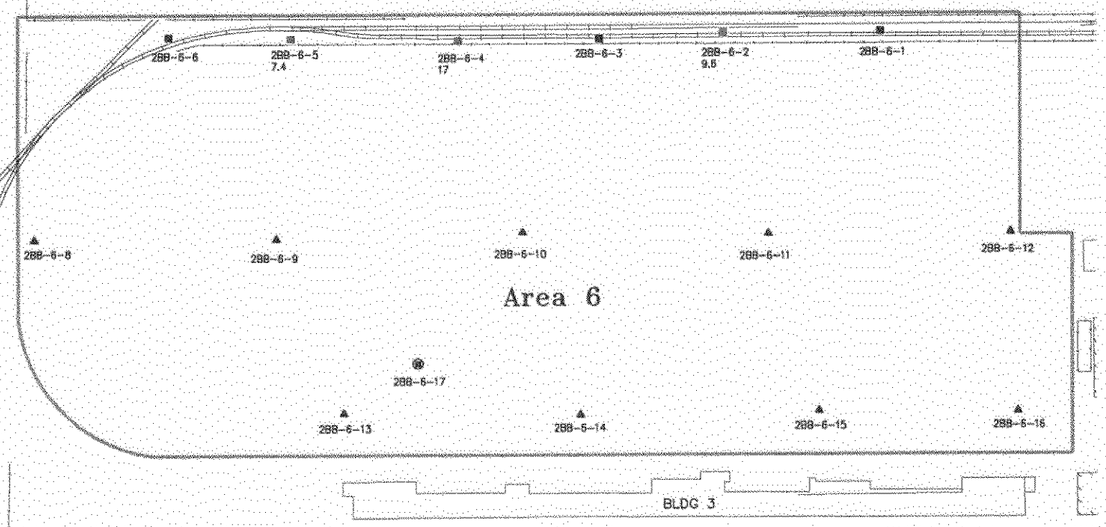
LEGEND

TCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 - 100
	101 - 500
	> 500
NS	NOT SAMPLED

Capitol Metals

International Light Metals





Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

TCE Detections
4-Foot Samples

October 1997
K/J 974002.00

Figure 7B

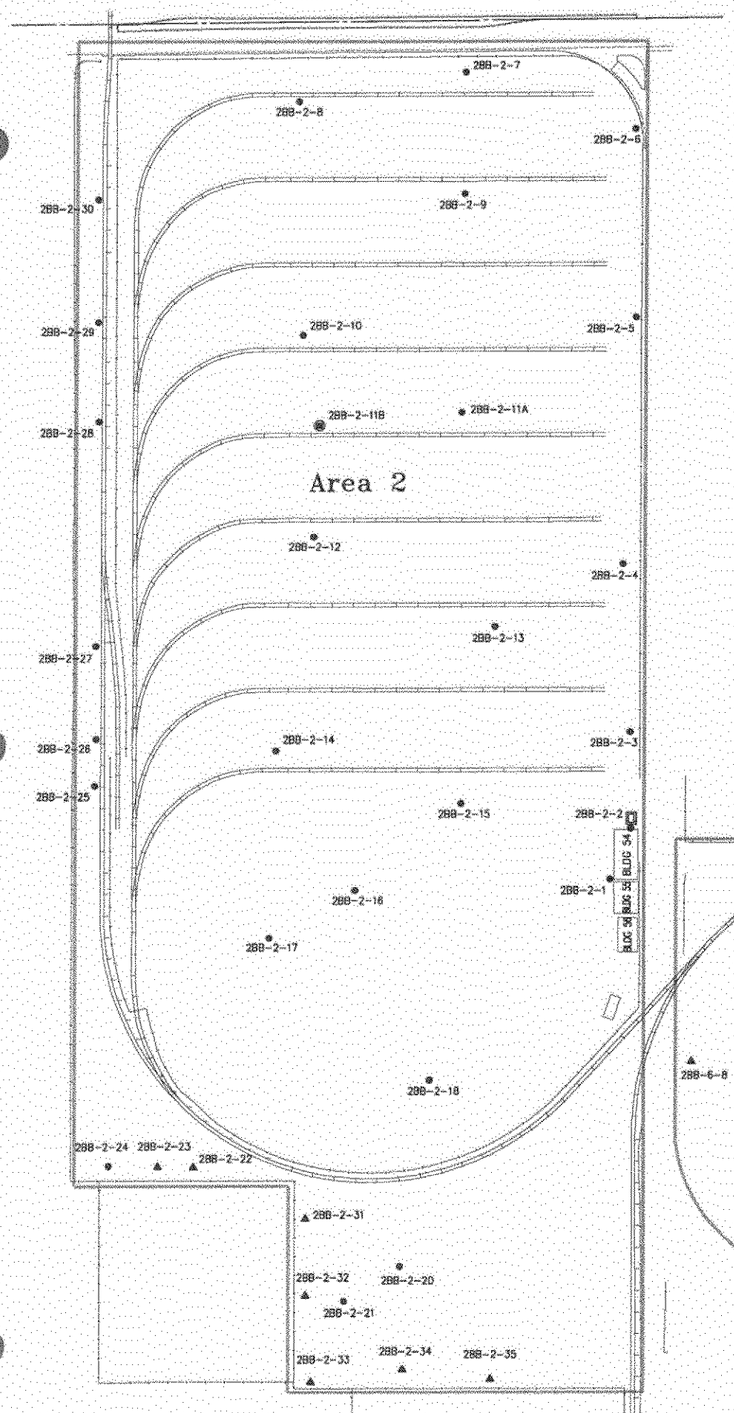
BRC C-6 FACILITY
PARCEL B

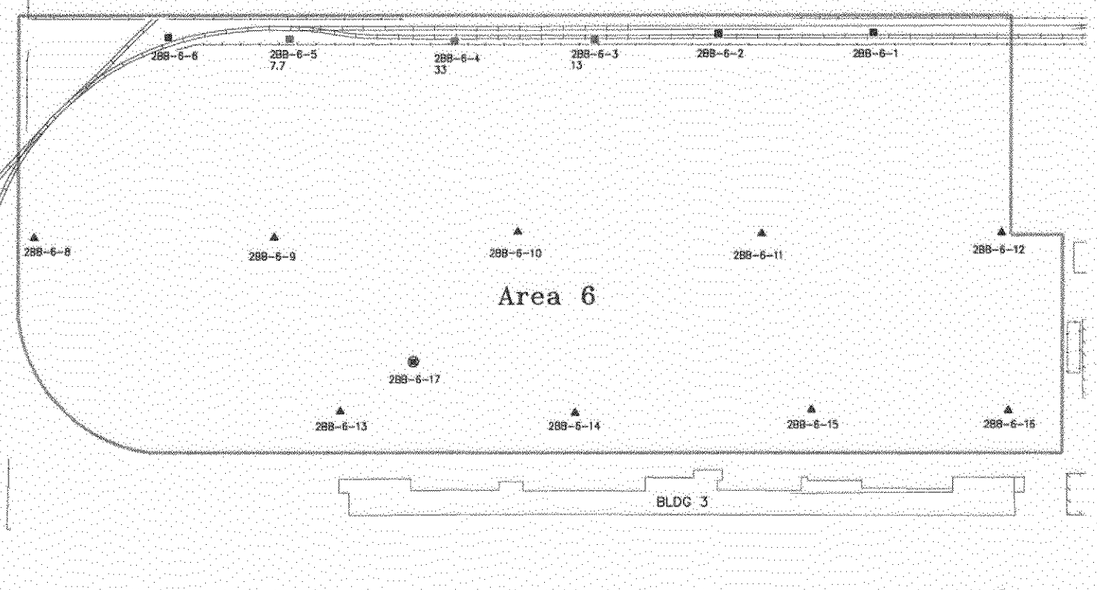
LEGEND

TCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED

Capitol Metals

International Light Metals





Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

TCE Detections
10-Foot Samples

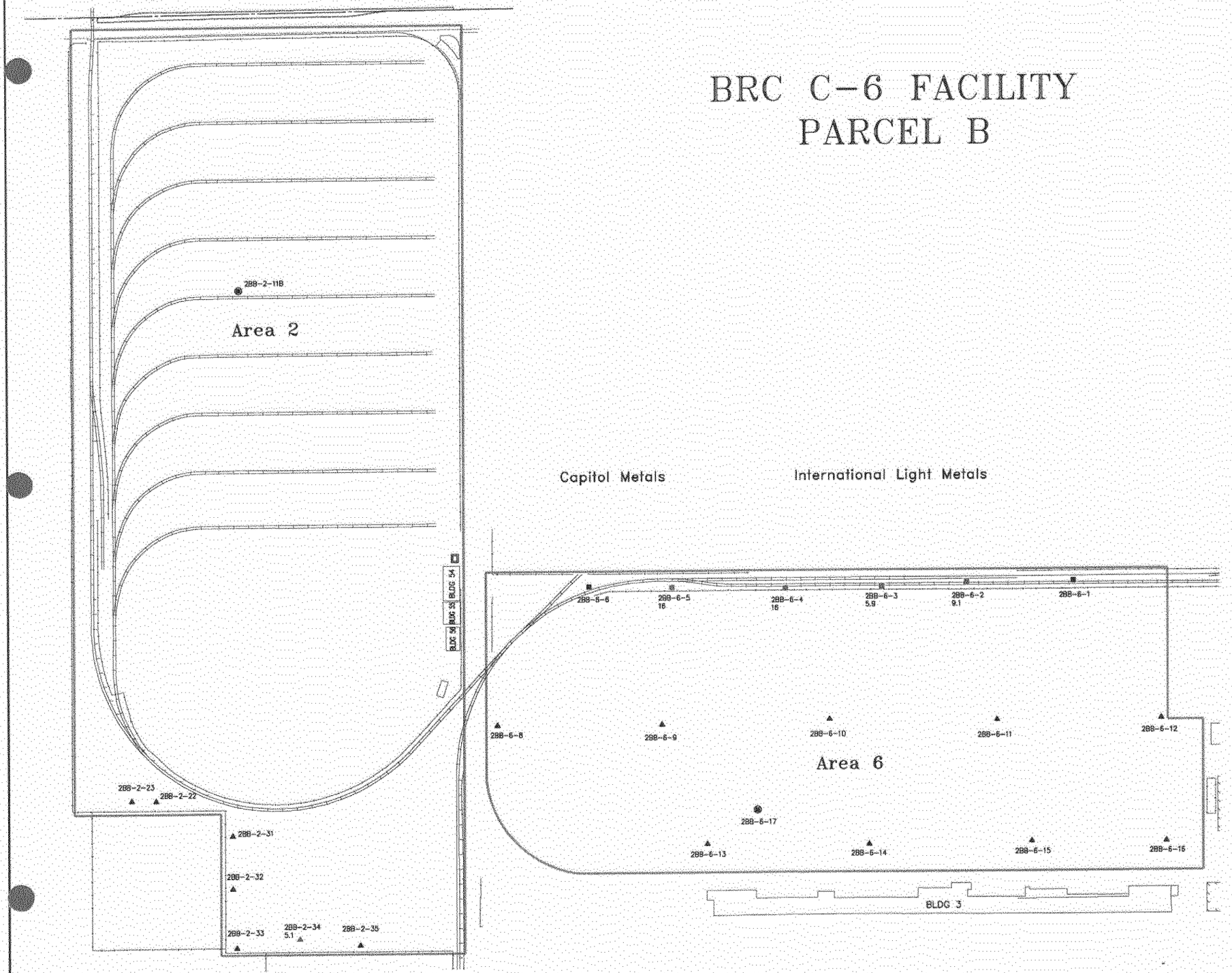
October 1997
K/J 974002.00

Figure 7C

BRC C-6 FACILITY
PARCEL B

LEGEND

TCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED



Soil Borings

- ▲ 25 Foot TD
- ■ 50 Foot TD
- ● 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

TCE Detections
15 & 20-Foot Samples

October 1997
K/J 974002.00

Figure 7D

BOE-C6-0026783

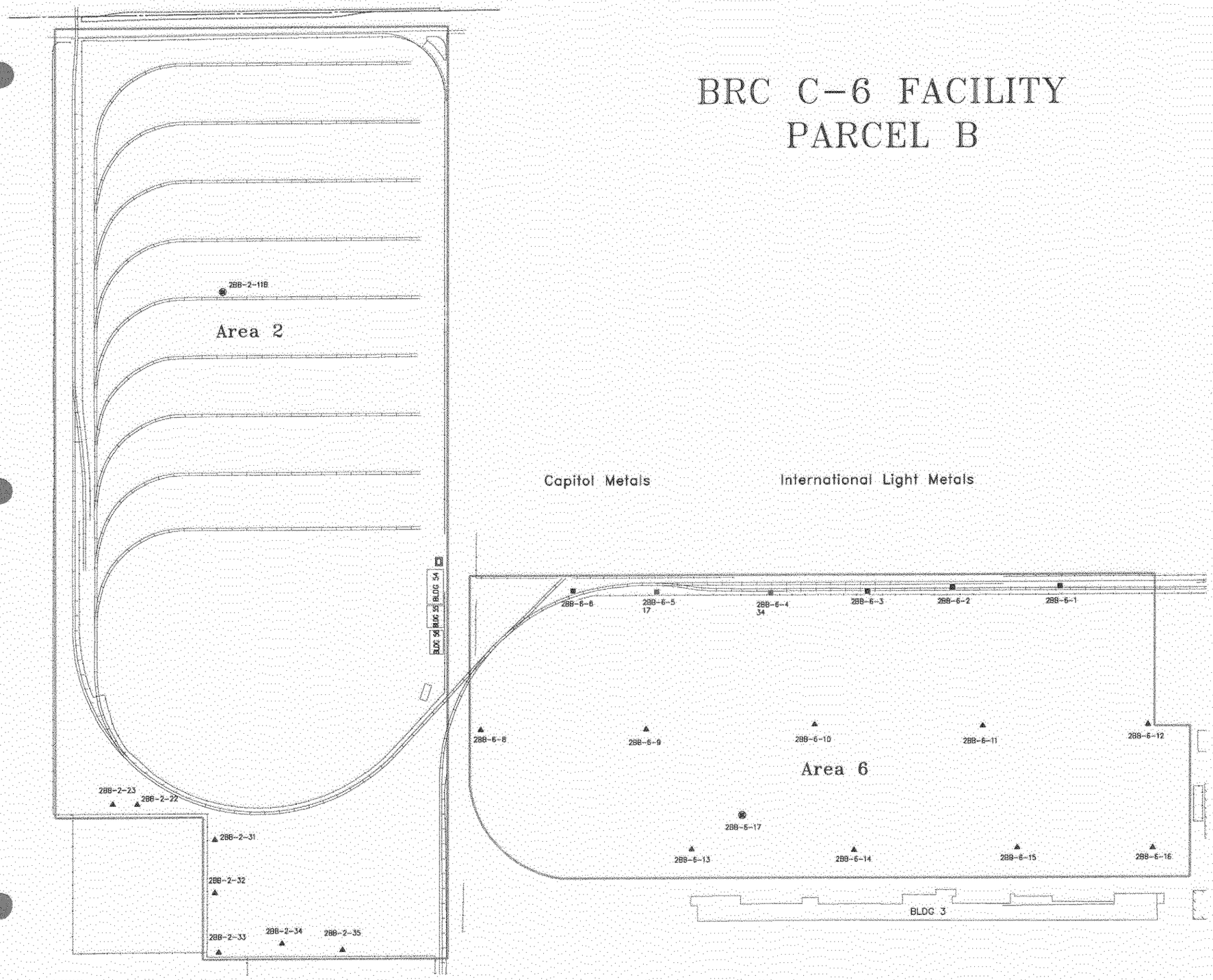
BRC C-6 FACILITY
PARCEL B

LEGEND

TCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED

Capitol Metals

International Light Metals



Soil Borings

- ▲ 25 Foot TD
- ■ 50 Foot TD
- ● 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

TCE Detections
25 & 30-Foot Samples

October 1997
K/J 974002.00

Figure 7E

BOE-C6-0026784

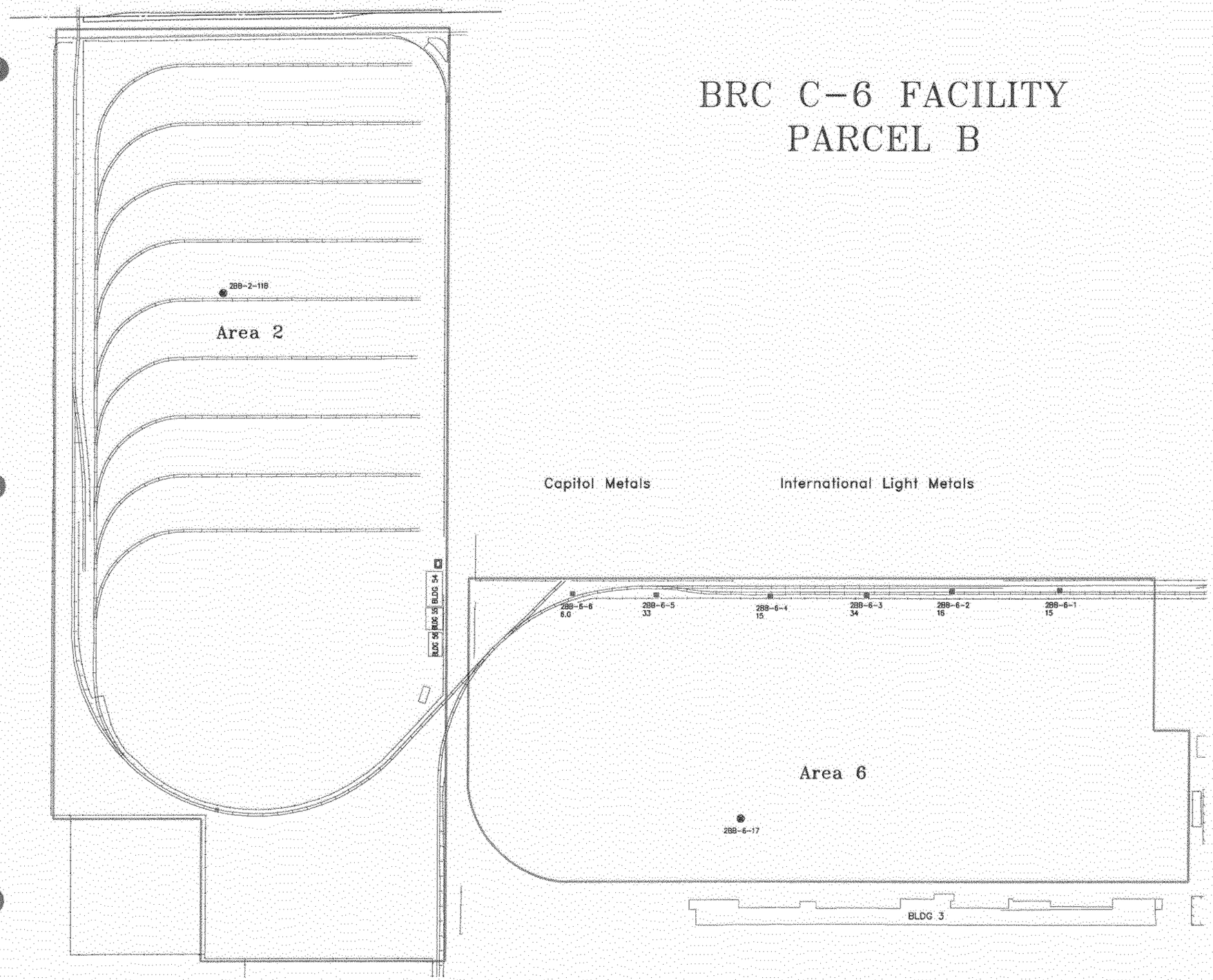
BRC C-6 FACILITY
PARCEL B

LEGEND

TCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED

Capitol Metals

International Light Metals



Soil Borings

- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

TCE Detections
40-Foot Samples

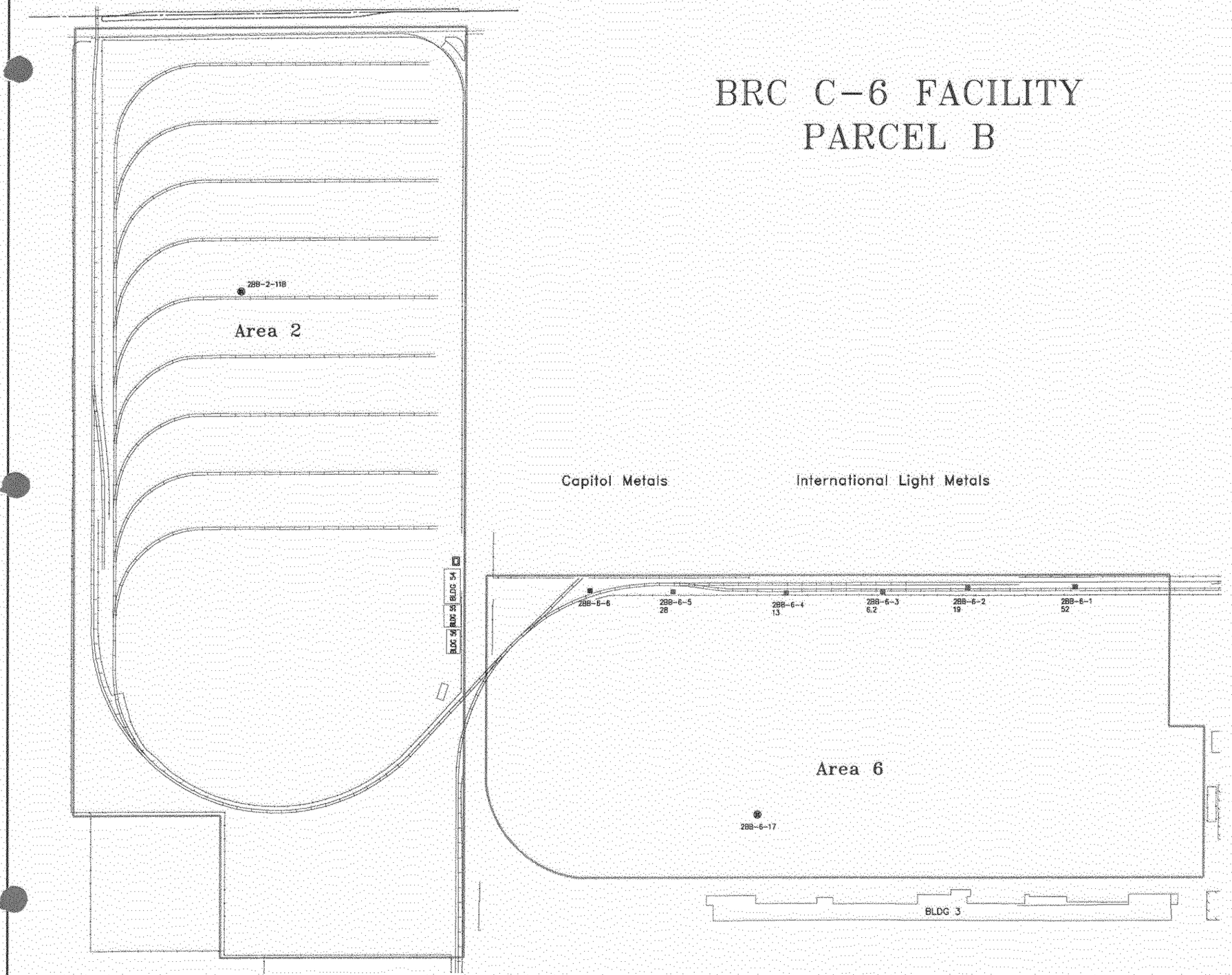
October 1997
K/J 974002.00

Figure 7F

BRC C-6 FACILITY
PARCEL B

LEGEND

TCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED



Soil Borings

- 50 Foot TD
- 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

TCE Detections
50-Foot Samples

October 1997
K/J 974002.00

Figure 7G

BRC C-6 FACILITY
PARCEL B

LEGEND

PCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

Area 6

BLDG 3

BLDG 54

BLDG 55

BLDG 56

Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

PCE Detections
1 & 2-Foot Samples

October 1997
K/J 974002.00

Figure 8A

BRC C-6 FACILITY
PARCEL B

LEGEND

PCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

Area 6

BLDG 3

Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

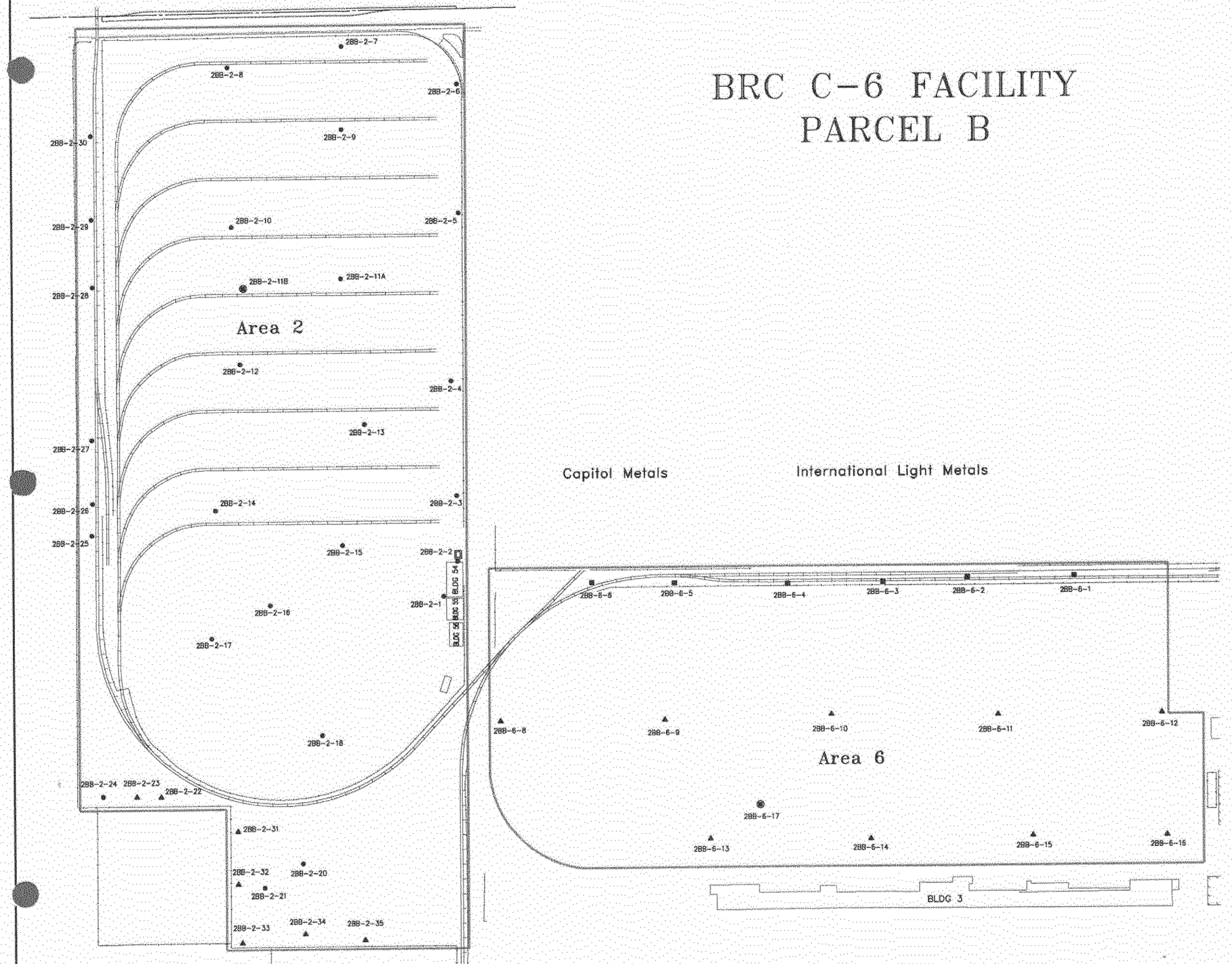
PCE Detections
4-Foot Samples

October 1997
K/J 974002.00

Figure 8B

BOE-C6-0026788

BRC C-6 FACILITY
PARCEL B



LEGEND

PCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 - 100
	101 - 500
	> 500
NS	NOT SAMPLED

Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

PCE Detections
10-Foot Samples

October 1997
K/J 974002.00

Figure 8C

BOE-C6-0026789

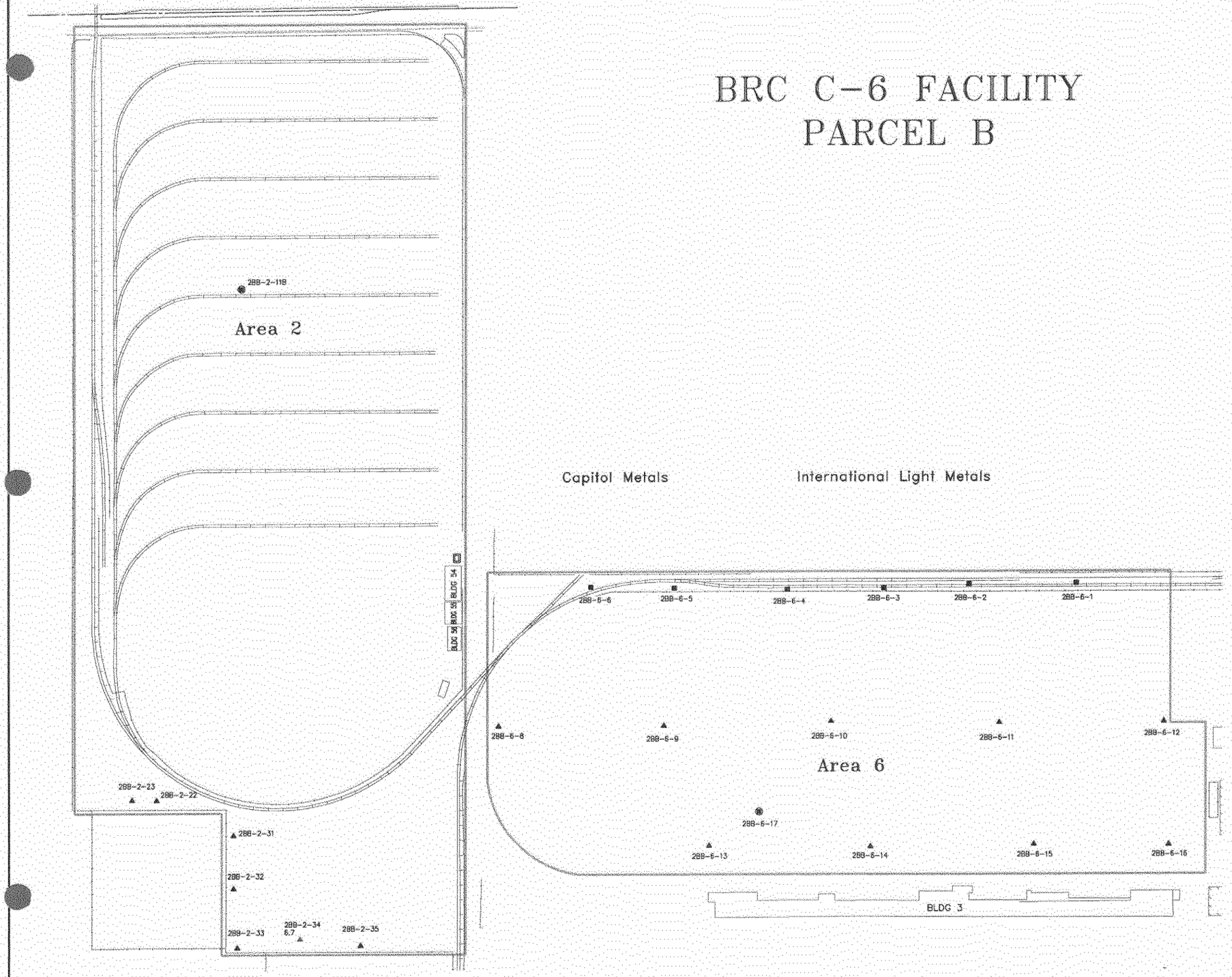
BRC C-6 FACILITY
PARCEL B

LEGEND

PCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED

Capitol Metals

International Light Metals



Soil Borings

- ▲ 25 Foot TD
- ■ 50 Foot TD
- ◉ 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

PCE Detections
15 & 20-Foot Samples

October 1997
K/J 974002.00

Figure 8D

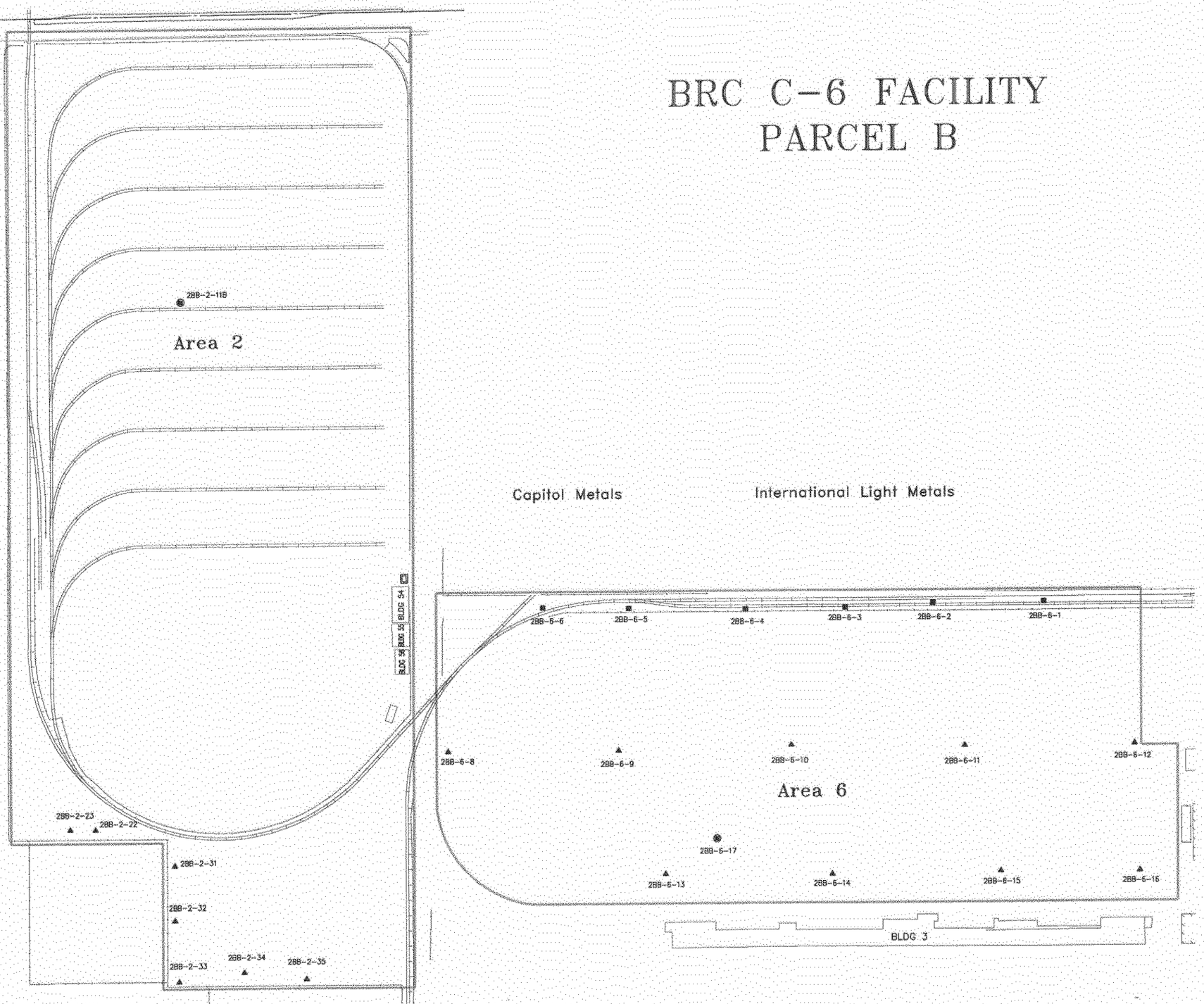
BRC C-6 FACILITY
PARCEL B

LEGEND

PCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED

Capitol Metals

International Light Metals



Soil Borings

- ▲ 25 Foot TD
- ■ 50 Foot TD
- ◉ 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

PCE Detections
25 & 30-Foot Samples

October 1997
K/J 974002.00

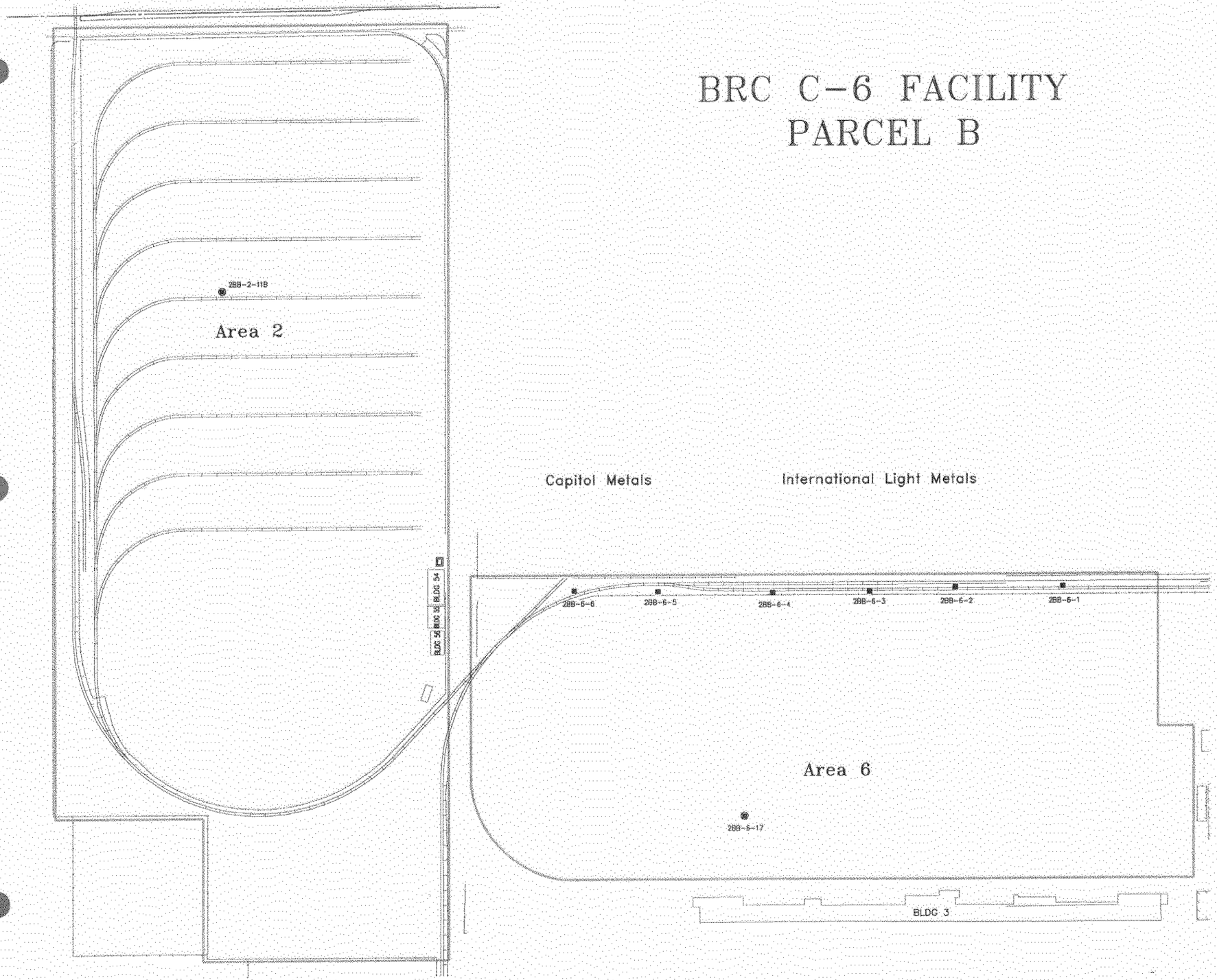
Figure 8E

BOE-C6-0026791

BRC C-6 FACILITY
PARCEL B

LEGEND

PCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED



Soil Borings

- 50 Foot TD
- 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

PCE Detections
40-Foot Samples

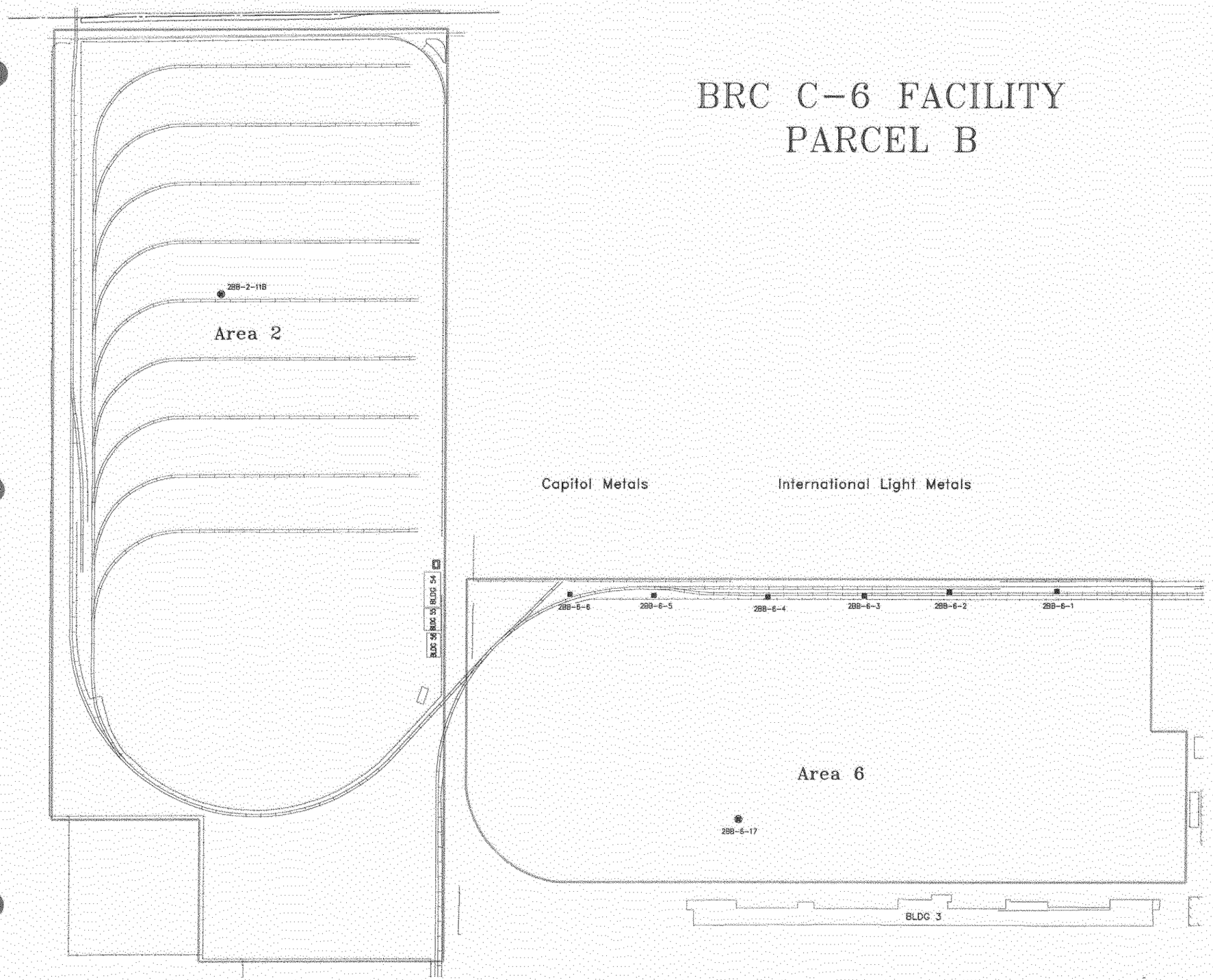
October 1997
K/J 974002.00

Figure 8F

BRC C-6 FACILITY
PARCEL B

LEGEND

PCE Concentration (ug/kg)	
	NOT DETECTED
	< 50
	51 – 100
	101 – 500
	> 500
NS	NOT SAMPLED



Soil Borings

- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

PCE Detections
50-Foot Samples

October 1997
K/J 974002.00

Figure 8G

BRC C-6 FACILITY
PARCEL B

LEGEND

Total Chromium Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

2BB-2-7 19
2BB-2-8 17
2BB-2-6 18
2BB-2-9 13
2BB-2-30 24
2BB-2-10 14
2BB-2-5 NS
2BB-2-29 21
2BB-2-11B 25
2BB-2-11A 13
2BB-2-28 19
2BB-2-12 19
2BB-2-4 17
2BB-2-13 19
2BB-2-27 30
2BB-2-14 NS
2BB-2-3 20
2BB-2-26 27
2BB-2-25 31
2BB-2-15 20
2BB-2-2 NS
2BB-2-16 24
2BB-2-1 NS
2BB-2-17 17
BLDG 54
BLDG 55
BLDG 56
2BB-2-18 22
2BB-2-24 27
2BB-2-23 19
2BB-2-22 29
2BB-2-31 26
2BB-2-32 33
2BB-2-20 18
2BB-2-21 28
2BB-2-33 18
2BB-2-34 28
2BB-2-35 NS

2BB-6-6 25
2BB-6-5 26
2BB-6-4 NS
2BB-6-3 15
2BB-6-2 25
2BB-6-1 NS
2BB-6-8 28
2BB-6-9 25
2BB-6-10 21
2BB-6-11 22
2BB-6-12 21
Area 6
2BB-6-17 32
2BB-6-13 25
2BB-6-14 20
2BB-6-15 27
2BB-6-16 22
BLDG 3

Soil Borings

- ● 10 Foot TD
- ▲ 25 Foot TD
- ■ 50 Foot TD
- ◉ 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Total Chromium Detections
1 & 2-Foot Samples

October 1997
K/J 974002.00

Figure 9A

BRC C-6 FACILITY
PARCEL B

LEGEND

Total Chromium Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

Area 6

BLDG 3

BLDG 54

BLDG 55

BLDG 56

Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

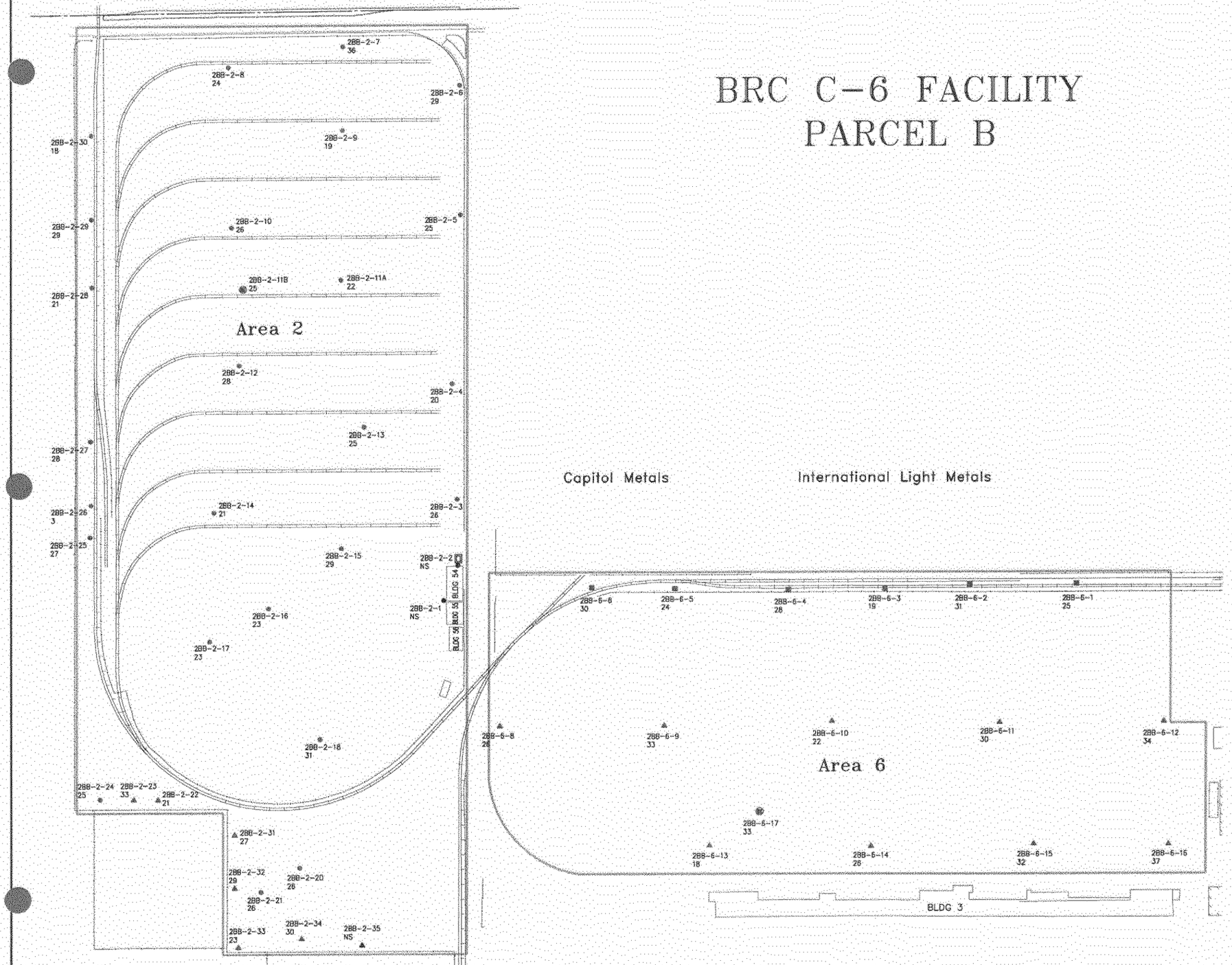
BRC C-6 Facility
Los Angeles, California

Total Chromium Detections
4 & 5-Foot Samples

October 1997
K/J 974002.00

Figure 9B

BRC C-6 FACILITY
PARCEL B



LEGEND

Total Chromium Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Total Chromium Detections
10-Foot Samples

October 1997
K/J 974002.00

Figure 9C

BRC C-6 FACILITY
PARCEL B

LEGEND

Total Chromium Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

Area 6

BLDG 54

BLDG 55

BLDG 56

BLDG 3

288-2-11B 17

288-2-23 13

288-2-22 18

288-2-31 18

288-2-32 13

288-2-33 18

288-2-34 17

288-2-35 NS

288-6-6 29

288-6-5 44

288-6-4 14

288-6-3 14

288-6-2 13

288-6-1 22

288-6-8 20

288-6-9 22

288-6-10 33

288-6-11 36

288-6-12 28

288-6-17 30

288-6-13 27

288-6-14 29

288-6-15 33

288-6-16 34

Soil Borings

- ▲ 25 Foot TD
- ■ 50 Foot TD
- ● 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Total Chromium Detections
15 & 20-Foot Samples

October 1997
K/J 974002.00

Figure 9D

BOE-C6-0026797

BRC C-6 FACILITY
PARCEL B

LEGEND

Total Chromium Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

Area 6

BLDG 54

BLDG 55

BLDG 56

BLDG 3

288-2-23 10
288-2-22 17
288-2-31 11
288-2-32 11
288-2-33 12
288-2-34 10
288-2-35 NS

288-6-6 12
288-6-5 16
288-6-4 12
288-6-3 11
288-6-2 11
288-6-1 9.3
288-6-8 11
288-6-9 16
288-6-10 11
288-6-11 20
288-6-12 18
288-6-17 8.6
288-6-13 10
288-6-14 15
288-6-15 22
288-6-16 16

Soil Borings

- ▲ 25 Foot TD
- ■ 50 Foot TD
- ● 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Total Chromium Detections
25 & 30-Foot Samples

October 1997
K/J 974002.00

Figure 9E

BRC C-6 FACILITY
PARCEL B

LEGEND

Total Chromium Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

Area 6

288-2-118
35

BLDG 54

BLDG 55

BLDG 56

288-6-6
27

288-6-5
15

288-6-4
10

288-6-3
25

288-6-2
12

288-6-1
17

288-6-17
9.2

BLDG 3

Soil Borings

- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Total Chromium Detections
40-Foot Samples

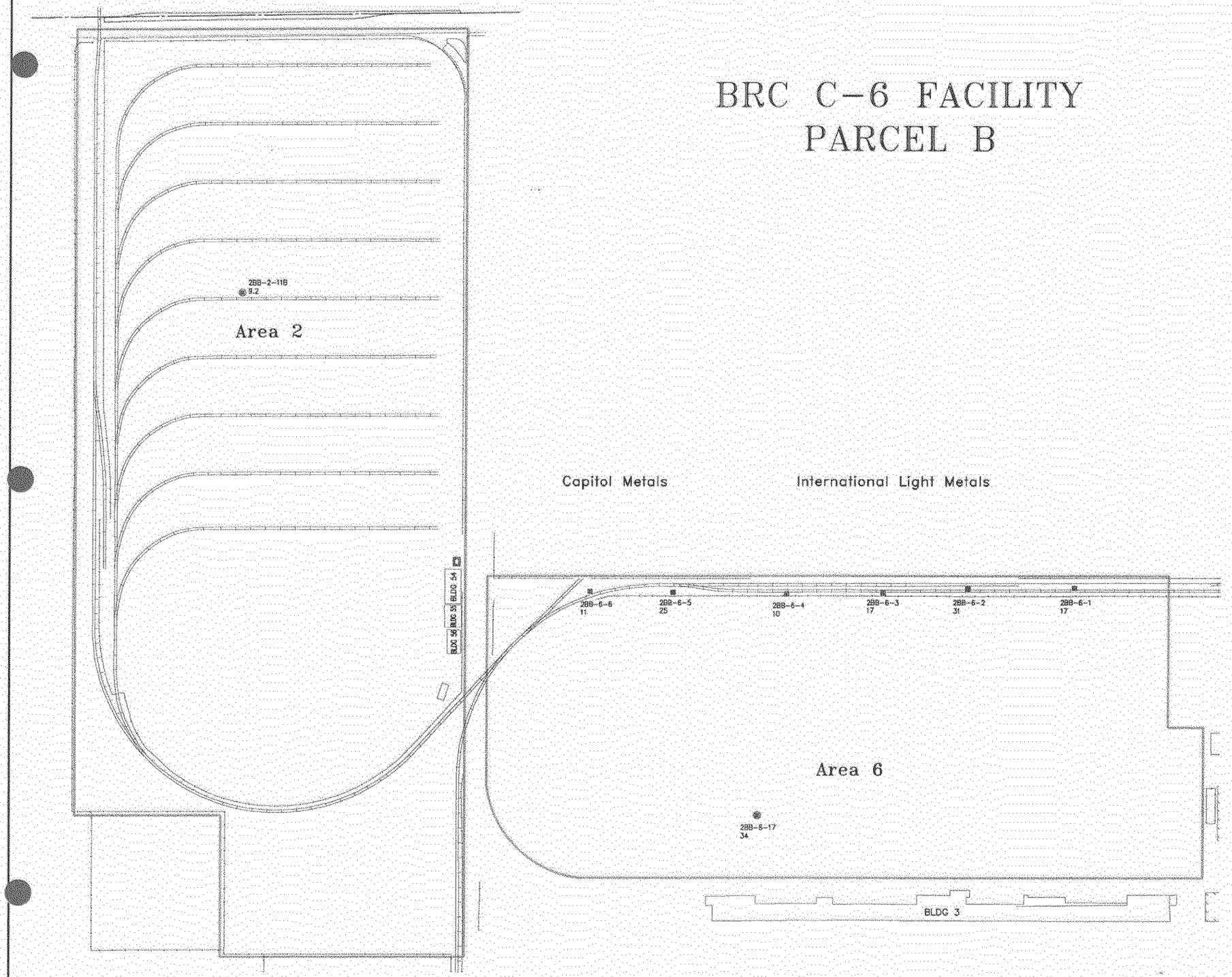
October 1997
K/J 974002.00

Figure 9F

BRC C-6 FACILITY
PARCEL B

LEGEND

Total Chromium Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED



Soil Borings

- 50 Foot TD
- 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

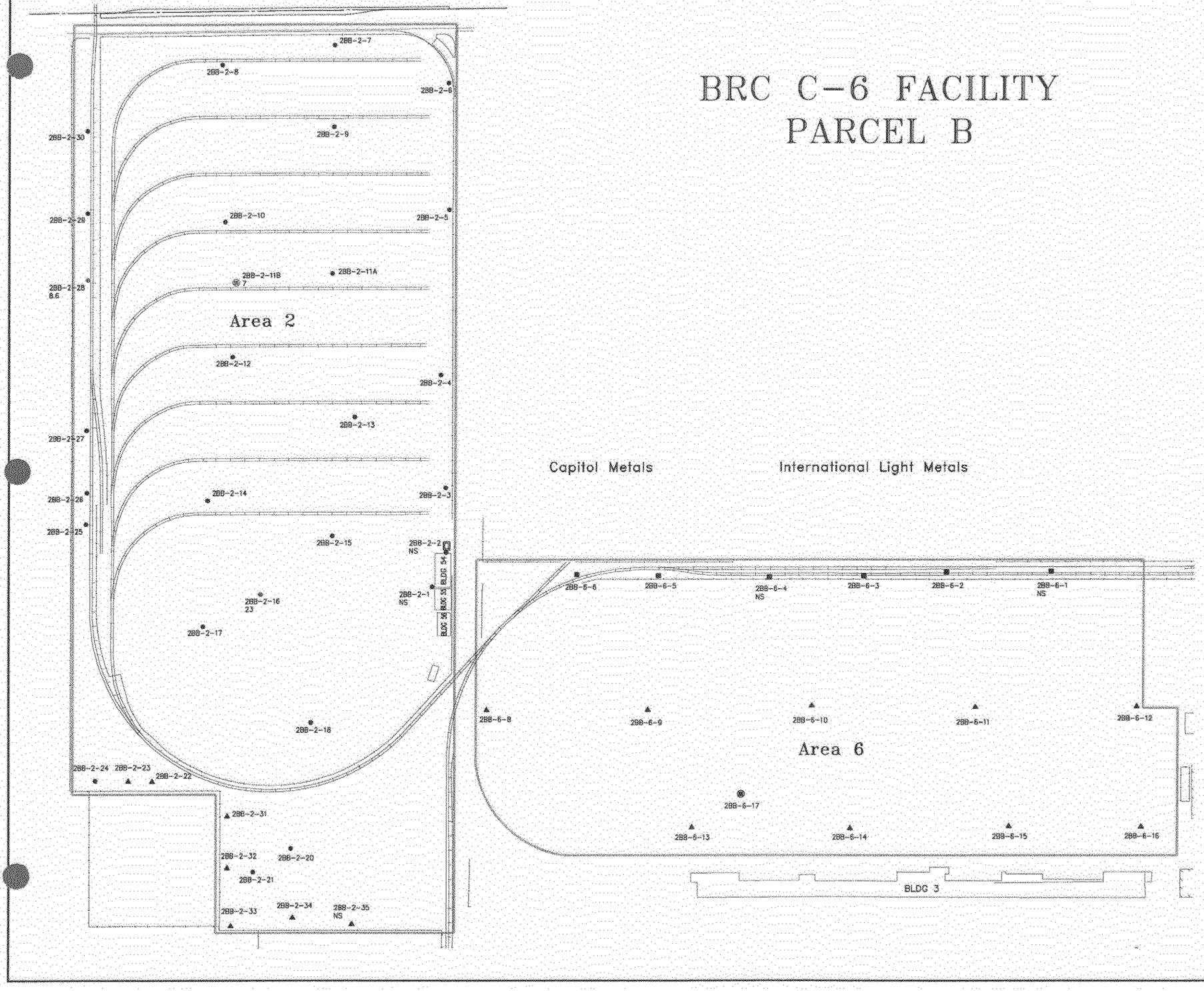
BRC C-6 Facility
Los Angeles, California

Total Chromium Detections
50-Foot Samples

October 1997
K/J 974002.00

Figure 9G

BRC C-6 FACILITY
PARCEL B



LEGEND

Lead Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Lead Detections
1 & 2-Foot Samples

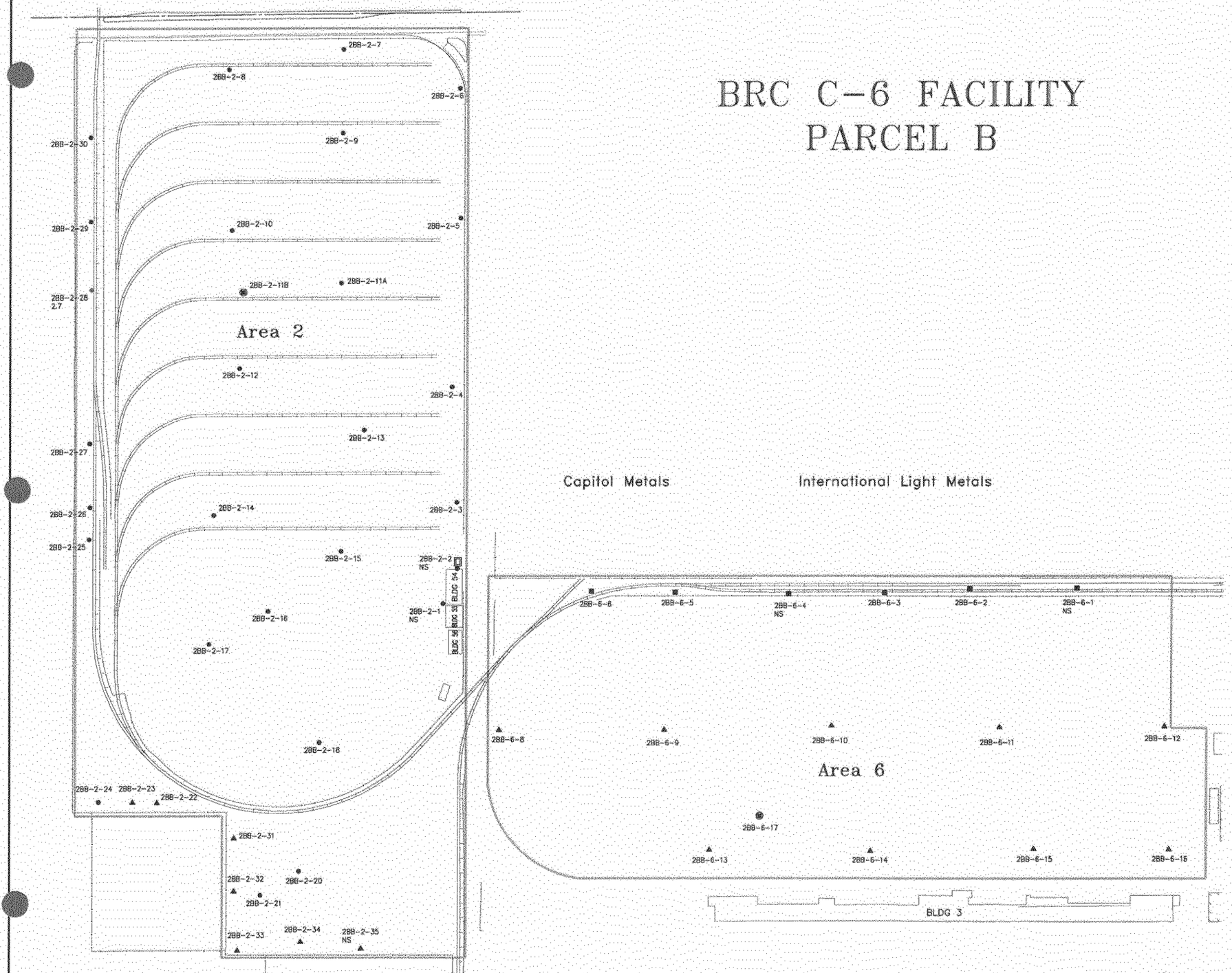
October 1997
K/J 974002.00

Figure 10A

BRC C-6 FACILITY
PARCEL B

LEGEND

Lead Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED



Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Lead Detections
4-Foot Samples

October 1997
K/J 974002.00

Figure 10B

BRC C-6 FACILITY
PARCEL B

LEGEND

Lead Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

Area 6

BLDG 54

BLDG 55

BLDG 56

BLDG 3

Soil Borings

- 10 Foot TD
- 25 Foot TD
- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Lead Detections
10-Foot Samples

October 1997
K/J 974002.00

Figure 10C

BRC C-6 FACILITY
PARCEL B

LEGEND

Lead Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

Area 6

2BB-2-118

2BB-2-23 2BB-2-22 2BB-2-31 2BB-2-32 2BB-2-33 2BB-2-34 2BB-2-35 NS

BLDG 54 BLDG 55 BLDG 56

2BB-6-6 2BB-6-5 2BB-6-4 2BB-6-3 2BB-6-2 2BB-6-1

2BB-6-8 2BB-6-9 2BB-6-10 2BB-6-11 2BB-6-12 2BB-6-17 2BB-6-13 2BB-6-14 2BB-6-15 2BB-6-16

BLDG 3

Soil Borings

- ▲ 25 Foot TD
- ■ 50 Foot TD
- ● 50 Foot Core Boring

0 100 200

Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Lead Detections
15 & 20-Foot Samples

October 1997
K/J 974002.00

Figure 10D

BOE-C6-0026804

BRC C-6 FACILITY
PARCEL B

LEGEND

Lead Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 - 50
	51 - 100
	> 100
NS	NOT SAMPLED

Capitol Metals

International Light Metals

Area 2

Area 6

2BB-2-11B

2BB-2-23
2BB-2-22
2BB-2-31
2BB-2-32
2BB-2-33
2BB-2-34
2BB-2-35 NS

BLDG 54
BLDG 55
BLDG 56

2BB-6-6
2BB-6-5
2BB-6-4
2BB-6-3
2BB-6-2
2BB-6-1
2BB-6-8
2BB-6-9
2BB-6-10
2BB-6-11
2BB-6-12
2BB-6-17
2BB-6-13
2BB-6-14
2BB-6-15
2BB-6-16

BLDG 3

Soil Borings

- ▲ 25 Foot TD
- ■ 50 Foot TD
- ● 50 Foot Core Boring

0 100 200
Approximate Scale: 1"=200'

N

Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Lead Detections
25 & 30-Foot Samples

October 1997
K/J 974002.00

Figure 10E

BRC C-6 FACILITY
PARCEL B

LEGEND

Lead Concentration (mg/kg)	
	NOT DETECTED
	< 20
	21 – 50
	51 – 100
	> 100
NS	NOT SAMPLED

Capitol Metals

International Light Metals

288-2-11B

Area 2

BLDG 54

BLDG 55

BLDG 56

288-6-6

288-6-5

288-6-4

288-6-3

288-6-2

288-6-1

Area 6

288-6-17

BLDG 3

Soil Borings

- 50 Foot TD
- 50 Foot Core Boring

0 100 200

Approximate Scale 1"=200'

N

Kennedy/Jenks Consultants

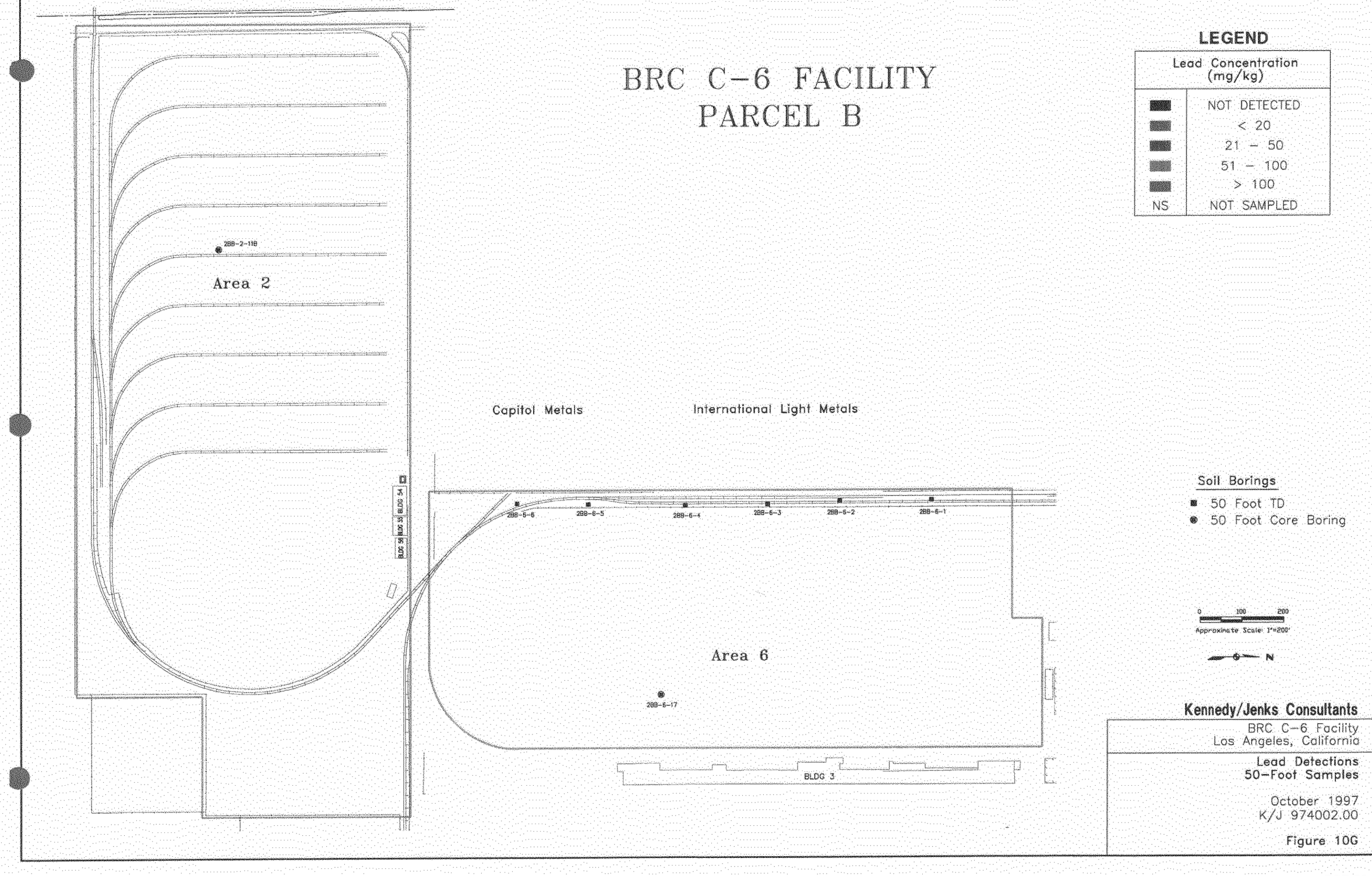
BRC C-6 Facility
Los Angeles, California

Lead Detections
40-Foot Samples

October 1997
K/J 974002.00

Figure 10F

BRC C-6 FACILITY
PARCEL B



Kennedy/Jenks Consultants

BRC C-6 Facility
Los Angeles, California

Lead Detections
50-Foot Samples

October 1997
K/J 974002.00

Figure 10G

APPENDIX A
Boring Logs

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Building 54	Boring Name: 2BB-2-1
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
LOGGED BY: S. Scrimshire	DATE STARTED: 4/14/97
	TOTAL DEPTH: 10 feet
	DATE COMPLETED: 4/14/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					0				Asphalt, 3"
							ML	10YR 3/2	Clayey SILT: very dark gray brown, firm, moist
							ML	2.5Y 4/4	Sandy SILT: olive brown, fine sand, soft, slightly moist
					5			10YR 4/2	dark gray brown
								10YR 4/4	dark yellow brown
							ML	10YR 4/3	Clayey SILT with Sand: brown, fine sand, firm, slightly moist
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Transformer Substation	Boring Name: 2BB-2-2
DRILLING COMPANY: Precision Sampling	DRILLER: Stewart King
DRILLING METHOD (S): XD-I	DRILL BIT (S) SIZE: 2.5 inches
Project Name: Douglas Aircraft	
Project Number: 974002.00	
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
TOTAL DEPTH: 10 feet	
LOGGED BY: D. Schneeberger	DATE STARTED: 5/7/97
DATE COMPLETED: 5/7/97	

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (Blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					0		CL	5Y 3/2	Asphalt, 3" Sandy CLAY: dark olive gray, soft to medium stiff, moist, moderately plastic, fine to medium sand
					5		ML	5Y 4/2	Clayey SILT: olive gray, moderately stiff, moist, slightly plastic, trace of fine sand
							SC	5Y 4/2	Clayey Fine SAND: olive gray, moderately stiff, moist, slightly plastic, trace of silt
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard	Boring Name: 2BB-2-3
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
	TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight	DATE STARTED: 4/14/97
	DATE COMPLETED: 4/14/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
							CL	10YR 2/2	Asphalt, 3" Silty CLAY: very dark brown, stiff, moist
								10YR 3/6	dark yellow brown
					5		ML	2.5Y 4/4	Clayey SILT: olive brown, very stiff, slightly moist
									increasing clay
								2.5Y 5/4	light olive brown, some fine sand
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard	Boring Name: 2BB-2-4
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
DEPTH TO WATER: Not Encountered	Project Name: Douglas Aircraft
LOGGED BY: J. Knight	Project Number: 974002.00
ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
DATE STARTED: 4/14/97	DATE COMPLETED: 4/14/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					0				Asphalt, 3"
■	■	■		5.3			CL	10YR 3/2	Silty CLAY: very dark gray brown, stiff, moist
■	■	■		5.3					
■	■	■			5		ML	2.5Y 4/4	Clayey SILT: olive brown, hard, dry
■	■	■		5.2					some fine sand, very stiff, slightly moist
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard

DRILLING COMPANY: Quaternary Investigations

DRILLER: Joe Abreau

DRILLING METHOD (S): Earth Probe

DRILL BIT (S) SIZE: 1.5 inches

DEPTH TO WATER: Not Encountered

LOGGED BY: J. Knight

Boring Name: 2BB-2-5

Project Name: Douglas Aircraft

Project Number: 974002.00

ELEVATION: Not Surveyed

TOTAL DEPTH: 10 feet

DATE STARTED: 4/14/97

DATE COMPLETED: 4/14/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									fill
				5.6			CL	10YR 3/2	Silty CLAY: very dark gray brown, stiff, moist
					5			10YR 3/3 2.5Y 5/6	mottled dark brown and light olive brown, firm, moist
							ML	2.5Y 4/4	Clayey SILT: olive brown, some fine sand, firm, moist
				6.2					1-inch lense of fine gravel
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard		Boring Name: 2BB-2-6	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight		DATE STARTED: 4/14/97	DATE COMPLETED: 4/14/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				5.2			CL	10YR 2/1	Silty CLAY: black, stiff, moist
				5.6				10YR 3/4	dark yellow brown, very stiff, slightly moist
					5		ML	10YR 3/4	Clayey SILT: dark yellow brown, very stiff, slightly moist, some fine sand
								2.5Y 4/4	olive brown, no sand
				5.7					
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard		Boring Name: 2BB-2-7	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
LOGGED BY: S. Scrimshire		DATE STARTED: 4/14/97	DATE COMPLETED: 4/14/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				0			ML	10YR 2/2	Clayey SILT: very dark brown, soft, moist
				0					some fine sand
					5		ML	2.5Y 4/3	Sandy SILT with Clay: olive brown, fine sand, soft, moist
								2.5Y 4/4	no clay, olive brown
				0			ML	2.5Y 4/4	Clayey SILT: olive brown, soft, moist
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard	Boring Name: 2BB-2-8
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
Project Name: Douglas Aircraft	
Project Number: 974002.00	
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
TOTAL DEPTH: 10 feet	
LOGGED BY: S. Scrimshire	DATE STARTED: 4/14/97
DATE COMPLETED: 4/14/97	

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				0			CL	10YR 3/2	Silty CLAY: very dark gray brown, firm, slightly moist
				0			ML	2.5Y 3/2	Clayey SILT: dark olive brown, firm, slightly moist
					5			2.5Y 4/4	olive brown, moist, soft
									some fine sand
				0	10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard	Boring Name: 2BB-2-9
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
Project Name: Douglas Aircraft	
Project Number: 974002.00	
.PTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
TOTAL DEPTH: 10 feet	
LOGGED BY: J. Knight	DATE STARTED: 4/15/97
DATE COMPLETED: 4/15/97	

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				3.7			CL	10YR 3/2	Silty CLAY: very dark gray brown, very stiff, slightly moist
				4.2				10YR 3/2	very dark gray brown, abundant organic material
					5			2.5Y 4/3	olive brown, hard, dry
									decreasing organic material
				4.7			ML	2.5Y 4/3	Clayey SILT: olive brown, very stiff, dry, some organic material
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard		Boring Name: 2BB-2-10	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight		DATE STARTED: 4/15/97	DATE COMPLETED: 4/15/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				2.6			CL	10YR 3/2	Silty CLAY: very dark gray brown, very stiff, slightly moist, abundant organic material
				3.0	5				decreasing organic material
							ML	2.5Y 4/4	Clayey SILT: olive brown, very stiff, slightly moist
				3.8	10			2.5Y 5/4	stiff, moist
									Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard

DRILLING COMPANY: Quaternary Investigations

DRILLER: Joe Abreau

DRILLING METHOD (S): Earth Probe

DRILL BIT (S) SIZE: 1.5 inches

DEPTH TO WATER: Not Encountered

LOGGED BY: J. Knight

Boring Name: 2BB-2-11A

Project Name: Douglas Aircraft

Project Number: 974002.00

ELEVATION: Not Surveyed

TOTAL DEPTH: 10 feet

DATE STARTED: 4/15/97

DATE COMPLETED: 4/15/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				3.2			CL	10YR 2/2	Silty CLAY: very dark brown, stiff, slightly moist
				3.1				2.5Y 3/3	dark olive brown, firm, moist
					5			2.5Y 4/4	olive brown, very stiff, slightly moist
							ML	2.5Y 5/6	Clayey SILT: light olive brown, stiff, slightly moist
				2.8	10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2- Tool Storage Yard		Boring Name: 2BB-2-11B	
DRILLING COMPANY: Water Development	DRILLER: Brian Fulce	Project Name: Douglas Aircraft	
DRILLING METHOD (S): CME-85, Hollow Stem Auger	DRILL BIT (S) SIZE: 8 inches	Project Number: 974002.00	
PTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 50 feet
LOGGED BY: Ken Knight		DATE STARTED: 3/7/97	DATE COMPLETED: 3/7/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Gravel Fill
			2 3 4	18.7			CL	7.5YR 3/2	CLAY: dark brown, minor silt, slightly moist, firm, slightly plastic
			4 5 7	43.9	5		ML	10YR 5/4	Sandy Clayey SILT: yellowish brown, slightly moist, stiff, moderately plastic
			4 11 15	6.2	10		SM	10YR 5/6	Silty SAND: yellowish brown, fine, slightly moist, trace of gravel, medium dense
			6 8 9		15				
			5 8 13	6.2	20		SP	10YR 5/6	SAND: yellowish brown with gray mottles, fine, poorly sorted, with silt, dry to slightly moist, medium dense
					25		CH	10YR 4/6	CLAY: yellowish brown with orange mottles, dry, hard, very plastic when wet
			26 28 38	2.0	30		SM	10YR 4/6	Silty SAND: yellowish brown, fine, slightly moist, very dense, trace of gravel, trace of mica
			9 10 26		35		SW	2.5Y 6/4	SAND: light yellowish brown, fine, trace of medium, mica, mafic grains, well graded, trace of silt, dry, dense
			8 10 13	14.5	40		ML	2.5Y 5/2	Clayey SILT: grayish brown with orange mottles, dry to slightly moist, moderately plastic

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2- Tool Storage Yard	Boring Name: 2BB-2-11B
DRILLING COMPANY: Water Development	DRILLER: Brian Fulce
DRILLING METHOD (S): CME-85, Hollow Stem Auger	DRILL BIT (S) SIZE: 8 inches
DEPTH TO WATER: Not Encountered	Project Name: Douglas Aircraft
LOGGED BY: Ken Knight	Project Number: 974002.00
ELEVATION: Not Surveyed	TOTAL DEPTH: 50 feet
DATE STARTED: 3/7/97	DATE COMPLETED: 3/7/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
							ML	2.5Y 5/2	Clayey SILT (Continued): grayish brown with orange mottles, dry to slightly moist, very stiff, moderately plastic
					45		SP	2.5Y 7/2	SAND: light gray, fine, subrounded, poorly graded, trace of silt, mafic grains, dry to slightly moist, very dense
			18 30 32	6.2					
					50				Boring terminated at 50 feet.
					55				
					60				
					65				
					70				
					75				
					80				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard
DRILLING COMPANY: Quaternary Investigations
DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe
DRILL BIT (S) SIZE: 1.5 inches
DEPTH TO WATER: Not Encountered
LOGGED BY: J. Knight

Boring Name: 2BB-2-12
Project Name: Douglas Aircraft
Project Number: 974002.00
ELEVATION: Not Surveyed
TOTAL DEPTH: 10 feet
DATE STARTED: 4/15/97
DATE COMPLETED: 4/15/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				1.8			CL	2.5Y 3/1	Silty CLAY: very dark gray, firm, moist
				2.6					
					5		ML	2.5Y 5/6	Clayey SILT: light olive brown, stiff, slightly moist
								2.5Y 4/4	olive brown, very stiff, slightly moist
				2.2	10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard	Boring Name: 2BB-2-13
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
DEPTH TO WATER: Not Encountered	Project Name: Douglas Aircraft
LOGGED BY: J. Knight	Project Number: 974002.00
ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
DATE STARTED: 4/15/97	DATE COMPLETED: 4/15/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					0				Asphalt, 8"
				0.4			CL	2.5Y 3/2	Silty CLAY: very dark gray brown, stiff, slightly moist
					5		ML	2.5Y 5/6	Clayey SILT: light olive brown, very stiff, slightly moist
				0.7				2.5Y 4/4	olive brown, stiff, slightly moist
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard	Boring Name: 2BB-2-14
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau — Project Name: Douglas Aircraft
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches — Project Number: 974002.00
TH TO WATER: Not Encountered	ELEVATION: Not Surveyed — TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight	DATE STARTED: 4/15/97 — DATE COMPLETED: 4/15/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					0		CL	10YR 3/3 10YR 4/4	Silty CLAY: mottled dark brown and dark yellow brown, stiff, slightly moist
					5		ML	2.5Y 5/6	Clayey SILT: light olive brown, stiff, slightly moist
				0.0				2.5Y 5/4	light olive brown, some fine sand
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard	Boring Name: 2BB-2-15
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau — Project Name: Douglas Aircraft
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches — Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed — TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight	DATE STARTED: 4/15/97 — DATE COMPLETED: 4/15/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					0		CL	10YR 3/2	Silty CLAY: very dark gray brown, stiff, slightly moist
								10YR 3/3 10YR 4/4	mottled dark brown and dark yellow brown
					5		ML	2.5Y 5/6	Clayey SILT: light olive brown, very stiff, slightly moist
								2.5Y 4/4	olive brown, trace of fine sand
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard	Boring Name: 2BB-2-16
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
Project Name: Douglas Aircraft	
Project Number: 974002.00	
TH TO WATER: Not Encountered	ELEVATION: Not Surveyed
TOTAL DEPTH: 10 feet	
LOGGED BY: J. Knight	DATE STARTED: 4/15/97
DATE COMPLETED: 4/15/97	

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 3"
							CL	10YR 2/1	Silty CLAY: black, stiff, moist
					5			10YR 3/2 10YR 4/6	mottled very dark gray brown and dark yellow brown
							ML	2.5Y 5/6	Clayey SILT: light olive brown, trace of fine sand, stiff, slightly moist
					10		ML	2.5Y 5/6	Sandy SILT: light olive brown, fine sand, some clay, stiff, slightly moist
									Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard	Boring Name: 2BB-2-17
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
DEPTH TO WATER: Not Encountered	Project Name: Douglas Aircraft
LOGGED BY: J. Knight	Project Number: 974002.00
ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
DATE STARTED: 4/15/97	DATE COMPLETED: 4/15/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				2.4			CL	10YR 3/1	Asphalt, 3" Silty CLAY: very dark gray, firm, moist
				2.2	5		ML	2.5Y 4/4	Clayey SILT: olive brown, stiff, slightly moist
								2.5Y 5/6	light olive brown
									trace of fine sand
				0.9			ML	2.5Y 5/4	Sandy SILT: light olive brown, fine sand, firm, moist
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Tool Storage Yard		Boring Name: 2BB-2-18	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight		DATE STARTED: 4/15/97	DATE COMPLETED: 4/15/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				1.3	0		CL	10YR 3/2	Asphalt, 3" Silty CLAY: very dark gray brown, firm, moist
				2.0			ML	2.5Y 4/4	Clayey SILT: olive brown, stiff, slightly moist
					5		ML	2.5Y 5/4	Sandy SILT: light olive brown, fine sand, firm, moist, some clay
							ML	2.5Y 5/4	Clayey SILT: light olive brown, firm, moist
				1.5					increasing clay
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard		Boring Name: 2BB-2-20	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight		DATE STARTED: 4/14/97	DATE COMPLETED: 4/14/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				6.8	0		CL	10YR 2/1	Silty CLAY: black, firm, moist
				6.8				10YR 2/2	very dark brown, stiff, slightly moist
					5			2.5Y 4/4	olive brown, very stiff, slightly moist
							ML	2.5Y 4/4	grades to Clayey SILT: olive brown, some fine sand, stiff, slightly moist
				6.9	10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard

DRILLING COMPANY: Quaternary Investigations

DRILLER: Joe Abreau

DRILLING METHOD (S): Earth Probe

DRILL BIT (S) SIZE: 1.5 inches

DEPTH TO WATER: Not Encountered

LOGGED BY: S. Scrimshire

Boring Name: 2BB-2-21

Project Name: Douglas Aircraft

Project Number: 974002.00

ELEVATION: Not Surveyed

TOTAL DEPTH: 10 feet

DATE STARTED: 4/14/97

DATE COMPLETED: 4/14/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				0			ML	10YR 2/2	Sandy SILT: very dark brown, fine sand, firm, slightly moist
				0					some clay
					5		ML	10YR 5/4	Sandy SILT: dark yellow brown, fine sand, soft, slightly moist
				0				2.5Y 4/4	olive brown
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard	Boring Name: 2BB-2-22
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau — Project Name: Douglas Aircraft
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches — Project Number: 974002.00
TH TO WATER: Not Encountered	ELEVATION: Not Surveyed — TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight	DATE STARTED: 4/11/97 — DATE COMPLETED: 4/11/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 4"
				7.2			CL	10YR 3/2	Silty CLAY: very dark brown, firm, moist
				7.8				2.5Y 4/4	olive brown, firm, moist
					5		ML	2.5Y 4/4	Sandy SILT: olive brown, fine sand, firm, moist
									some clay, stiff, slightly moist
				7.8					
					10		ML	2.5Y 4/4	Clayey SILT: olive brown, stiff, slightly moist
				7.8	15		ML	2.5Y 5/6	Sandy SILT: light olive brown, fine sand, stiff, slightly moist
				7.9	20		SM	2.5Y 6/6	Silty SAND: olive yellow, fine, loose, dry
				8.2	25			5Y 7/4	pale yellow, loose, slightly moist
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, LADWP Substation
DRILLING COMPANY: Quaternary Investigations
DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe
DRILL BIT (S) SIZE: 1.5 inches
DEPTH TO WATER: Not Encountered
LOGGED BY: J. Knight

Boring Name: 2BB-2-23
Project Name: Douglas Aircraft
Project Number: 974002.00
ELEVATION: Not Surveyed
TOTAL DEPTH: 26 feet
DATE STARTED: 4/10/97
DATE COMPLETED: 4/10/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 4"
■	■	■		6.2			CL	10YR 3/3	Silty CLAY: dark brown, firm, moist
■	■	■		5.9				10YR 4/4	dark yellow brown, some fine sand, stiff, slightly moist
					5			10YR 3/3 10YR 5/6	mottled dark brown and yellow brown
■	■	■		7.1				2.5Y 4/3	olive brown, very stiff, moist
					10				
■	■	■		7.2	15		ML	2.5Y 5/6	Sandy SILT: light olive brown, fine sand, firm, moist
■	■	■		7.3	20		SM	2.5Y 6/4	Silty SAND: light yellow brown, fine, loose, moist
■	■	■		7.7	25			5Y 7/4	pale yellow, loose, slightly moist
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard	Boring Name: 2BB-2-24
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
DEPTH TO WATER: Not Encountered	Project Name: Douglas Aircraft
LOGGED BY: J. Knight	Project Number: 974002.00
ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
DATE STARTED: 4/10/97	DATE COMPLETED: 4/10/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 4"
				5.6			CL	2.5Y 4/4	Silty CLAY: olive brown, stiff, slightly moist
				6.3				10YR 3/6	dark yellow brown, very stiff, slightly moist
					5		ML	2.5Y 4/4	Sandy SILT: olive brown, fine sand, firm, moist
									some clay
				7.2			CL	2.5Y 4/4	Silty CLAY: olive brown, stiff, moist
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard	Boring Name: 2BB-2-25
DRILLING COMPANY: Quaternary Investigations	Project Name: Douglas Aircraft
DRILLER: Joe Abreau	Project Number: 974002.00
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
TOTAL DEPTH: 10 feet	
LOGGED BY: J. Knight	DATE STARTED: 4/10/97
DATE COMPLETED: 4/10/97	

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
■	■	■		4.9			ML	2.5Y 4/4	Clayey SILT: olive brown, firm, moist
■		■		6.8					soft, moist
					5				
								10YR 4/3 10YR 4/6	mottled dark brown and dark yellow brown, very soft, moist
■	■	■		6.3			ML	2.5Y 4/4	Sandy SILT: olive brown, fine sand, trace of clay, firm, moist
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard	Boring Name: 2BB-2-26
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
	TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight	DATE STARTED: 4/10/97
	DATE COMPLETED: 4/10/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				4.9			ML	2.5Y 4/3	Clayey SILT: olive brown, firm, moist
					5			2.5Y 3/3	dark olive brown, soft, moist
				6.5				2.5Y 4/2	dark gray brown, soft, moist
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard		Boring Name: 2BB-2-27	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight		DATE STARTED: 4/10/97	DATE COMPLETED: 4/10/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				5.1			ML	10YR 4/4	Clayey SILT: dark yellow brown, firm, moist
				7.2				10YR 4/4 10YR 3/2	mottled dark yellow brown and very dark gray brown, soft, moist
					5				
								2.5Y 4/4	olive brown, stiff, moist
				5.6					
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard		Boring Name: 2BB-2-28	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight		DATE STARTED: 4/10/97	DATE COMPLETED: 4/10/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					0		CL	10YR 2/2	Silty CLAY: very dark brown, some gravel lenses, firm, moist
				4.6				10YR 3/3	dark brown, soft, moist
					5				
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard

DRILLING COMPANY: Quaternary Investigations

DRILLER: Joe Abreau

DRILLING METHOD (S): Earth Probe

DRILL BIT (S) SIZE: 1.5 inches

DEPTH TO WATER: Not Encountered

LOGGED BY: J. Knight

Boring Name: 2BB-2-29

Project Name: Douglas Aircraft

Project Number: 974002.00

ELEVATION: Not Surveyed

TOTAL DEPTH: 11 feet

DATE STARTED: 4/10/97

DATE COMPLETED: 4/10/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				7.5			CL	10YR 3/2	Silty CLAY: very dark gray, firm, moist
				8.2				10YR 3/1	dark brown, firm, moist
					5			10YR 4/4 10YR 3/3	mottled dark yellow brown and dark brown, soft, moist
				4.9	10		ML	2.5Y 4/4	Clayey SILT: olive brown, stiff, moist
									Boring terminated at 11 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Scrap Material Storage Yard	Boring Name: 2BB-2-30
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
.PTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
	TOTAL DEPTH: 10 feet
LOGGED BY: J. Knight	DATE STARTED: 4/10/97
	DATE COMPLETED: 4/10/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
							ML	10YR 3/4	Clayey SILT: dark yellow brown, stiff, slightly moist
				8.3			CL	10YR 3/2	Silty CLAY: very dark gray brown, firm, moist
					5			2.5Y 4/4 10YR 3/3	mottled olive brown and dark brown, firm, moist
							ML	2.5Y 5/4	Clayey SILT: light olive brown, firm, moist, some lenses of organic material
				5.5			CL	2.5Y 4/4	Silty CLAY: olive brown, stiff, moist
					10				Boring terminated at 10 feet.
					15				
					20				
					25				
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, LADWP Substation	Boring Name: 2BB-2-31
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
	TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight	DATE STARTED: 4/11/97
	DATE COMPLETED: 4/11/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				6.9			CL	10YR 2/1	Silty CLAY: black, firm, moist
				7.5				10YR 3/2	very dark gray brown, stiff, moist
					5			2.5Y 5/6	light olive brown, stiff, slightly moist
							ML	2.5Y 6/4	Sandy SILT: light yellow brown, fine sand, firm, slightly moist
				7.4				2.5Y 5/4	light olive brown, decreasing sand, trace of clay
					10				
				7.8	15				
				7.5	20		SM	2.5Y 6/6	Silty SAND: olive yellow, fine, loose, dry
				7.6	25			5Y 7/2	light gray, medium dense, slightly moist
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, LADWP Substation	Boring Name: 2BB-2-32
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
Project Name: Douglas Aircraft	
Project Number: 974002.00	
TH TO WATER: Not Encountered	ELEVATION: Not Surveyed
TOTAL DEPTH: 26 feet	
LOGGED BY: J. Knight	DATE STARTED: 4/11/97
DATE COMPLETED: 4/11/97	

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				7.0			CL	10YR 3/1	Silty CLAY: very dark gray, stiff, slightly moist
					5		ML	2.5Y 4/4	Clayey SILT: olive brown, some fine sand, stiff, slightly moist
				8.0					firm, moist
					10				
				7.9	15		ML	2.5Y 5/4	Sandy SILT: light olive brown, fine sand, stiff, slightly moist
				7.8	20		SM	5Y 6/3	Silty SAND: pale olive, fine, loose, dry
				7.8	25				slightly moist
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, LADWP Substation	Boring Name: 2BB-2-33
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
	TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight	DATE STARTED: 4/11/97
	DATE COMPLETED: 4/11/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				5.6			ML	10YR 3/2	Clayey SILT: very dark gray brown, stiff, slightly moist
				7.1			CL	10YR 3/6	Silty CLAY: dark yellow brown, firm, moist
					5		ML	2.5Y 4/4	Clayey SILT: olive brown, stiff, slightly moist, some fine sand
							ML	2.5Y 5/4	grades to Sandy SILT: light olive brown, fine sand, stiff, slightly moist
									firm, moist
				6.3	10		CL	2.5Y 4/4	grades to Silty CLAY: olive brown, firm, moist
				7.2	15				very stiff, moist
				6.8	20		ML	2.5Y 5/4	Sandy SILT: light olive brown, fine sand, firm, slightly moist
				6.3	25			2.5Y 5/6	light olive brown, firm, moist
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Border with Montrose Chemical		Boring Name: 2BB-2-34	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight		DATE STARTED: 4/11/97	DATE COMPLETED: 4/11/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
							CL	2.5Y 3/3	Silty CLAY: dark olive brown, firm, dry
				5.0				2.5Y 4/2	dark gray brown, firm, moist
					5		ML	2.5Y 4/4	Clayey SILT with Sand: olive brown, fine sand, stiff, moist
									decreasing clay, increasing sand, firm, slightly moist
				5.5					soft, moist
					10				
				5.9	15				increasing clay, soft, moist
				6.1	20		Ml	5Y 6/4	Sandy SILT: pale olive, fine sand, firm, slightly moist
				7.7	25		SM	2.5Y 5/4	Silty SAND: light olive brown, fine, loose, slightly moist
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 2, Border with Montrose Chemical	Boring Name: 2BB-2-35
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
LOGGED BY: J. Knight	DATE STARTED: 4/14/97
	TOTAL DEPTH: 26 feet
	DATE COMPLETED: 4/14/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/ft)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				6.4			CL	10YR 3/2	Silty CLAY: very dark gray brown, firm, moist
								10YR 3/1	very dark gray
					5			10YR 3/3	dark brown, stiff, slightly moist
							ML	2.5Y 5/4	Sandy SILT: light olive brown, fine sand, some clay, firm, moist
				7.0			ML	2.5Y 4/4	grades to Clayey SILT: olive brown, firm, moist, some fine sand
					10				
									decreasing clay, no sand
					15				
							SM	2.5Y 5/4	Silty SAND: light olive brown, fine, loose, slightly moist
				7.2	20				
				7.6	25				medium dense, slightly moist
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals	Boring Name: 2BB-6-1
DRILLING COMPANY: Water Development	DRILLER: Gary Whitley
'LLING METHOD (S): CME-85, Hollow Stem Auger	DRILL BIT (S) SIZE: 8 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
	TOTAL DEPTH: 50.5 feet
LOGGED BY: D. Schneeberger	DATE STARTED: 4/23/97
	DATE COMPLETED: 4/23/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
			4 5 4						Asphalt Concrete, 3" ballast
			2 4 8	0	5		ML	2.5Y 4/3	Clayey SILT: olive brown, medium stiff, damp, slightly plastic, trace of fine sand
			2 4 9	0	10				
					15				
			3 5 9	0	20		SC	7.5YR 5/4	Clayey Fine SAND: brown, medium stiff to stiff, damp to moist, slightly plastic
			4 7 9	0	30		SP	5Y 6/4	SAND: pale olive, loose, damp, fine, trace of silt
				0	35				
			5 7 10	0	40			5Y 5/4	olive, loose, damp, fine, abundant shell fragments

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals	Boring Name: 2BB-6-1
DRILLING COMPANY: Water Development	DRILLER: Gary Whitley
DRILLING METHOD (S): CME-85, Hollow Stem Auger	DRILL BIT (S) SIZE: 8 inches
DEPTH TO WATER: Not Encountered	Project Name: Douglas Aircraft
LOGGED BY: D. Schneeberger	Project Number: 974002.00
	ELEVATION: Not Surveyed
	TOTAL DEPTH: 50.5 feet
	DATE STARTED: 4/23/97
	DATE COMPLETED: 4/23/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (Blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					45		SP	5Y 5/4	SAND (Continued): olive, loose, damp, fine, abundant shell fragments
			10				GC	2.5Y 4/4	Clayey GRAVEL: olive brown, stiff to very stiff, damp, 3" thick layer, gravel is 1/8" to 1/2" in diameter
			14	0	50		SP	5Y 5/4	SAND: olive, medium dense, damp, fine, trace of silt, no shell fragments
			19						Boring terminated at 50.5 feet.
					55				
					60				
					65				
					70				
					75				
					80				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals

DRILLING COMPANY: Water Development

DRILLER: Gary Whitley

DRILLING METHOD (S): CME-85, Hollow Stem Auger

DRILL BIT (S) SIZE: 8 inches

DEPTH TO WATER: Not Encountered

LOGGED BY: D. Schneeberger

Boring Name: 2BB-6-2

Project Name: Douglas Aircraft

Project Number: 974002.00

ELEVATION: Not Surveyed

TOTAL DEPTH: 50.5 feet

DATE STARTED: 4/23/97

DATE COMPLETED: 4/23/97

SAMPLES Driven	SAMPLES Recovered	SAMPLES Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt Concrete, 3"
									ballast
			4 4 4				CL	10YR 3/1	CLAY: very dark gray, firm, damp, moderately plastic
			2 3 7	0	5			10YR 3/2	very dark grayish brown, stiff, damp, moderately plastic, trace of fine sand
			2 3 7	0	10		SC	2.5Y 4/3	Clayey Fine SAND: olive brown, stiff, moist, slightly plastic
			3 3 6	0	20				
			5 10 14	0	30		SP	5YR 5/8	SAND: yellowish red, medium dense, damp, fine
			3 6 9	0	40				trace of fossil shell fragments

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals	Boring Name: 2BB-6-2
DRILLING COMPANY: Water Development / DRILLER: Gary Whitley	Project Name: Douglas Aircraft
ILLING METHOD (S): CME-85, Hollow Stem Auger / DRILL BIT (S) SIZE: 8 inches	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed / TOTAL DEPTH: 50.5 feet
LOGGED BY: D. Schneeberger	DATE STARTED: 4/23/97 / DATE COMPLETED: 4/23/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					45		SP	5YR 5/8	SAND (Continued): yellowish red, medium dense, damp, fine, trace of fossil shell fragments
			4 13 17	10.4	50				dense, no shell fragments
									Boring terminated at 50.5 feet.
					55				
					60				
					65				
					70				
					75				
					80				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals	Boring Name: 2BB-6-3
DRILLING COMPANY: Water Development	DRILLER: Gary Whitley
DRILLING METHOD (S): CME-85, Hollow Stem Auger	DRILL BIT (S) SIZE: 8 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
	TOTAL DEPTH: 50.5 feet
LOGGED BY: D. Schneeberger	DATE STARTED: 4/23/97
	DATE COMPLETED: 4/23/97

SAMPLES Driven	SAMPLES Recovered	SAMPLES Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
			4 6 8				CL	10YR 3/1	Asphalt Concrete, 4" ballast Sandy CLAY: very dark gray, stiff, moderately plastic, damp, fine sand
			2 5 10	0	5		ML	5YR 5/4	Clayey SILT: reddish brown, very stiff, moist, slightly plastic
			2 5 6	0	10			5YR 4/3	reddish brown, trace of fine sand
			3 4 7	0	20		SC	5YR 5/4	Clayey Fine SAND: reddish brown, stiff, damp, slightly plastic
			6 11 14	0	30		SP	5YR 5/8	SAND: yellowish red, medium dense, damp, fine
			4 4 6	0	40				trace of silt

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals	Boring Name: 2BB-6-3
DRILLING COMPANY: Water Development	DRILLER: Gary Whitley
DRILLING METHOD (S): CME-85, Hollow Stem Auger	DRILL BIT (S) SIZE: 8 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
	TOTAL DEPTH: 50.5 feet
LOGGED BY: D. Schneeberger	DATE STARTED: 4/23/97
	DATE COMPLETED: 4/23/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					45		SP	5YR 5/8	SAND (Continued): yellowish red, medium dense, damp, fine, trace of silt
			7 16 21	2.0	50			5Y 5/4	olive, dense, damp, fine, trace of silt
									Boring terminated at 50.5 feet.
					55				
					60				
					65				
					70				
					75				
					80				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals	Boring Name: 2BB-6-4
DRILLING COMPANY: Water Development / DRILLER: Gary Whitley	Project Name: Douglas Aircraft
DRILLING METHOD (S): CME-85, Hollow Stem Auger / DRILL BIT (S) SIZE: 8 inches	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed / TOTAL DEPTH: 55.5 feet
LOGGED BY: D. Schneeberger	DATE STARTED: 4/23/97 / DATE COMPLETED: 4/23/97

SAMPLES Driven	SAMPLES Recovered	SAMPLES Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
			3 6 6						Asphalt Concrete, 4" ballast
			3 4 3	0	5		ML	5YR 4/4	Clayey SILT: reddish brown, firm, damp, slightly to moderately plastic
			3 4 6	0	10		SC	5YR 5/4	Clayey Fine SAND: reddish brown, stiff, moist, slightly plastic
			4 8 8	0	20				
			3 4 8	0	30		SP	5YR 5/8	SAND: yellowish red, medium dense, damp, fine, trace of silt
			5 5 10	0	40			5YR 4/6	yellowish red, medium dense, damp, fine, trace of silt

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals	Boring Name: 2BB-6-4
DRILLING COMPANY: Water Development / DRILLER: Gary Whitley	Project Name: Douglas Aircraft
'LLING METHOD (S): CME-85, Hollow Stem Auger / DRILL BIT (S) SIZE: 8 inches	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed / TOTAL DEPTH: 55.5 feet
LOGGED BY: D. Schneeberger	DATE STARTED: 4/23/97 / DATE COMPLETED: 4/23/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					45		SP	5YR 4/6	SAND (Continued): yellowish red, medium dense, damp, fine, trace of silt
					50				
			8 19 26	0	55			5Y 5/4	olive, dense, damp to moist, fine
									Boring terminated at 55.5 feet.
					60				
					65				
					70				
					75				
					80				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6- Border with International Light Metals

DRILLING COMPANY: Water Development

DRILLER: Brian Fulce

DRILLING METHOD (S): CME-95, Hollow Stem Auger

DRILL BIT (S) SIZE: 8 inches

DEPTH TO WATER: Not Encountered

LOGGED BY: Ken Knight

Boring Name: 6-4

Project Name: Douglas Aircraft

Project Number: 974002.00

ELEVATION: Not Surveyed

TOTAL DEPTH: 50 feet

DATE STARTED: 3/5/97

DATE COMPLETED: 3/5/97

SAMPLES Driven	SAMPLES Recovered	SAMPLES Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 6" Gravel Fill
			2				CL	10YR 3/2	CLAY: dark brown, dry to slightly moist, stiff, moderately plastic
			4 6	1.9			ML	2.5Y 4/3	SILT: olive brown, dry to slightly moist, very stiff, slightly plastic
			6 8 12	2.8	5				
			4 7 9	3.1	10				
			3 7 14		15		ML	2.5Y 6/3	Sandy SILT: light yellow brown, dry, very stiff
			8 12 22	0.9	20		SM	2.5Y 6/4	Silty SAND: light yellow brown, fine, dense, dry
			10 16 28	0.9	25		SP	2.5Y 5/6	SAND: light olive brown, fine, dense, dry
					30			2.5Y 6/4	light yellow brown
					35				minor shell fragment zone from 34 to 34.5 feet
			15 27 32		40		SM	2.5Y 6/6	Silty SAND: olive yellow, dry, dense
							ML	2.5Y 5/6	Sandy SILT: light olive brown, dry, dense

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6- Border with International Light Metals

DRILLING COMPANY: Water Development

DRILLER: Brian Fulce

DRILLING METHOD (S): CME-95, Hollow Stem Auger

DRILL BIT (S) SIZE: 8 inches

DEPTH TO WATER: Not Encountered

LOGGED BY: Ken Knight

Boring Name: 6-4

Project Name: Douglas Aircraft

Project Number: 974002.00

ELEVATION: Not Surveyed

TOTAL DEPTH: 50 feet

DATE STARTED: 3/5/97

DATE COMPLETED: 3/5/97

SAMPLES Driven	SAMPLES Recovered	SAMPLES Collected	SAMPLES Penetration Resistance (blows/foot)	SAMPLES Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
							ML	2.5Y 5/6	Sandy SILT (Continued): light olive brown, dry, dense
							SP	2.5Y 7/2	SAND: light gray, fine, dry, dense
					45		SM	2.5Y 6/4	Silty SAND: light yellowish brown, slightly moist, dense
			12 24 28	2.8			SP	2.5Y 7/2	SAND: light gray, fine, dry, dense
					50				Boring terminated at 50 feet.
					55				
					60				
					65				
					70				
					75				
					80				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals	Boring Name: 2BB-6-5
DRILLING COMPANY: Water Development / DRILLER: Gary Whitley	Project Name: Douglas Aircraft
'LLING METHOD (S): CME-85, Hollow Stem Auger / DRILL BIT (S) SIZE: 8 inches	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed / TOTAL DEPTH: 50.0 feet
LOGGED BY: M. Balderman	DATE STARTED: 4/24/97 / DATE COMPLETED: 4/24/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt Concrete
■	■	■	2 4 5	13.6			CL	10YR 2/2	Sandy CLAY: very dark brown, firm, dry to damp, fine sand, moderately plastic
■	■	■	4 6 9	13.6	5		ML	10YR 4/4 10YR 2/1	Clayey Sandy SILT: dark yellowish brown, stiff, some fine gravel, dry to damp
■	■	■	3 4 5	22.7	10		SM	10YR 5/4	Silty SAND: yellowish brown, loose, dry to damp, fine, trace of fine gravel, 40% fines
■	■	■	5 5 8	13.6	20				
					25				
■	■	■	5 7 12	22.7	30		ML	10YR 4/3	Sandy SILT: brown, stiff, damp, 35% fine sand
							SP/SM	10YR 6/3	SAND: pale brown, trace of fines, medium dense, damp to moist
					35				
■	■	■	7 8 12	13.6	40		SP	10YR7/4 10YR 7/7	SAND: very pale brown mottled with yellow, medium dense, damp, trace of fines

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals

DRILLING COMPANY: Water Development

DRILLER: Gary Whitley

DRILLING METHOD (S): CME-85, Hollow Stem Auger

DRILL BIT (S) SIZE: 8 inches

DEPTH TO WATER: Not Encountered

LOGGED BY: M. Balderman

Boring Name: 2BB-6-5

Project Name: Douglas Aircraft

Project Number: 974002.00

ELEVATION: Not Surveyed

TOTAL DEPTH: 50.0 feet

DATE STARTED: 4/24/97

DATE COMPLETED: 4/24/97

SAMPLES Driven	SAMPLES Recovered	SAMPLES Collected	SAMPLES Penetration Resistance (blows/foot)	SAMPLES Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					45		SP	10YR 7/4 10YR 7/7	SAND (Continued): very pale brown mottled with yellow, medium dense, damp, trace of fines
			10 22 35	22.7	50		ML SP	10YR 5/6 10YR 7/3	Sandy SILT: yellowish brown, dense, damp, 35% fine sand SAND: very pale brown, dense, damp, trace of fines
					55				Boring terminated at 50.0 feet.
					60				
					65				
					70				
					75				
					80				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals

DRILLING COMPANY: Water Development

DRILLER: Gary Whitley

DRILLING METHOD (S): CME-85, Hollow Stem Auger

DRILL BIT (S) SIZE: 8 inches

DEPTH TO WATER: Not Encountered

LOGGED BY: M. Balderman

Boring Name: 2BB-6-6

Project Name: Douglas Aircraft

Project Number: 974002.00

ELEVATION: Not Surveyed

TOTAL DEPTH: 51.5 feet

DATE STARTED: 4/24/97

DATE COMPLETED: 4/24/97

SAMPLES Driven	SAMPLES Recovered	SAMPLES Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt Concrete
■	■	■	2 3 3				CL	10YR 2/2	Sandy CLAY: very dark brown, firm, dry to damp, some coarse sand and fine gravel
■	■	■	2 5 8		5		CL/CH	10YR 5/4	Silty CLAY: yellowish brown, stiff, dry to damp, some fine sand
■	■	■	3 4 6		10				
					15				
■	■	■	5 8 10		20				mottled with calcium carbonate
					25				
■	■	■	5 8 10		30		SP/SM	10YR 6/3	SAND: pale brown, medium dense, damp to moist, some silt
					35				
■	■	■	4 7 10		40		SP	10YR 5/4	Silty SAND: yellowish brown, medium dense, damp to moist, 70% sand

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Border with International Light Metals	Boring Name: 2BB-6-6
DRILLING COMPANY: Water Development / DRILLER: Gary Whitley	Project Name: Douglas Aircraft
DRILLING METHOD (S): CME-85, Hollow Stem Auger / DRILL BIT (S) SIZE: 8 inches	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed / TOTAL DEPTH: 51.5 feet
LOGGED BY: M. Balderman	DATE STARTED: 4/24/97 / DATE COMPLETED: 4/24/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					45		SM	10YR 5/4	Silty SAND (Continued): yellowish brown, medium dense, damp to moist, 70% sand
			4						
			9						
			18		50		SP	10YR 7/2	SAND: light gray, dense, damp to moist, some silt
			8						
			19						
			32						
									Boring terminated at 51.5 feet.
					55				
					60				
					65				
					70				
					75				
					80				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot	Boring Name: 2BB-6-8
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
LOGGED BY: J. Knight	DATE STARTED: 4/16/97
	TOTAL DEPTH: 26 feet
	DATE COMPLETED: 4/16/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	SAMPLES: Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
							CL	10YR 2/2	Asphalt, 3" Silty CLAY: very dark gray brown, firm, moist
				1.0					
				1.2	5		ML	2.5Y 5/6	Clayey SILT: light olive brown, stiff, slightly moist
				1.6	10		ML	2.5Y 5/6	SILT with Sand: light olive brown, fine sand, stiff, slightly moist
				1.3	15			2.5Y 5/2	gray brown, some clay, decreasing sand, stiff, slightly moist
				1.5	20		ML	2.5Y 4/4	Clayey SILT: olive brown, stiff, slightly moist
				3.9	25		ML	2.5Y 6/4	Sandy SILT: light yellow brown, very fine sand, stiff, slightly moist
					30				Boring terminated at 26 feet.
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot		Boring Name: 2BB-6-9	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight		DATE STARTED: 4/17/97	DATE COMPLETED: 4/17/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 3"
				2.4			ML	10YR 2/2	Clayey SILT: very dark brown, firm, moist
				3.2			CL	10YR 3/2 10YR 3/4	Silty CLAY: mottled very dark gray brown and dark yellow brown, firm, moist
					5			2.5Y 4/4	olive brown, stiff, slightly moist, some fine sand
				4.5					
					10				
								2.5Y 5/4	light yellow brown, decreasing clay
				4.9	15				
								2.5Y 5/6	light olive brown, trace of clay, firm, moist
				3.9	20				
							ML	2.5Y 6/4	Sandy SILT: light yellow brown, fine sand, firm, slightly moist
				4.0	25				
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot	Boring Name: 2BB-6-10
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
LOGGED BY: J. Knight	DATE STARTED: 4/17/97
	TOTAL DEPTH: 26 feet
	DATE COMPLETED: 4/17/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 3"
				2.2			CL	10YR 2/2	Silty CLAY: very dark brown, firm, moist
				2.7				2.5Y 4/4	olive brown
					5		ML	2.5Y 4/4	Clayey SILT: olive brown, stiff, slightly moist
				3.4					decreasing clay, some fine sand, stiff, moist
					10				
				3.1	15			2.5Y 5/4	light olive brown, firm, moist
				3.3	20			2.5Y 5/6	light olive brown, stiff, slightly moist
				3.0	25		SM	2.5Y 6/6	Silty SAND: olive yellow, fine, loose, slightly moist
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot	Boring Name: 2BB-6-11
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
LOGGED BY: J. Knight	TOTAL DEPTH: 26 feet
	DATE STARTED: 4/17/97
	DATE COMPLETED: 4/17/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					0				Asphalt, 3"
■	■	■		2.1			CL	2.5Y 2.5/1	Silty CLAY: black, firm, moist
■	■	■		2.1				2.5Y 4/4 2.5Y 3/3	mottled olive brown and dark olive brown, firm, moist
					5		ML	2.5Y 4/4	Clayey SILT: olive brown, firm, moist
■	■	■		2.8					
					10				slightly moist
■	■	■		2.4	15				firm, moist
■	■	■		2.9	20				increasing clay, stiff, slightly moist
■	■	■		2.4	25			2.5Y 5/6	light olive brown, firm, moist, trace of fine sand
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot		Boring Name: 2BB-6-12	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
'LLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight		DATE STARTED: 4/17/97	DATE COMPLETED: 4/17/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					0				Asphalt, 2"
■	■	■		2.8			CL	2.5Y 3/1	Silty CLAY: very dark gray, stiff, moist
■	■	■		3.4				2.5Y 3/3	dark olive brown, stiff, slightly moist
■	■	■			5		ML	2.5Y 4/4	Clayey SILT: olive brown, very stiff, slightly moist,
■	■	■							stiff
■	■	■		4.8					some fine sand, decreasing clay
■	■	■			10				
■	■	■		5.3	15				firm, moist
■	■	■		5.3	20				stiff, moist
■	■	■		4.8	25		ML	2.5Y 5/6	Sandy SILT: light olive brown, fine sand, firm, slightly moist
									Boring terminated at 26 feet.
					30				
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot		Boring Name: 2BB-6-13	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight		DATE STARTED: 4/17/97	DATE COMPLETED: 4/17/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 3"
				11.6			CL	2.5Y 2.5/1	Silty CLAY: black, stiff, moist
				10.9				10YR 3/3 10YR 3/4	mottled dark brown and dark yellow brown, stiff, moist
					5		ML	2.5Y 5/6	Clayey SILT: light olive brown, stiff, slightly moist
									very stiff, slightly moist
				11.8	10			2.5Y 4/4	olive brown
				11.5	15			2.5Y 5/4	light olive brown
				11.7	20		ML	2.5Y 5/4	Sandy SILT: light olive brown, fine sand, firm, moist
				11.2	25		SM	2.5Y 6/4	Silty SAND: light yellow brown, fine, loose, slightly moist
					30				Boring terminated at 26 feet.
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot		Boring Name: 2BB-6-14	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
'LLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight		DATE STARTED: 4/17/97	DATE COMPLETED: 4/17/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
				1.7			CL	10YR 2/1	Asphalt, 3" Silty CLAY: black, stiff, moist
				2.5	5		ML	2.5Y 4/4	Clayey SILT: olive brown, stiff, slightly moist trace of fine sand
				3.0	10		ML	2.5Y 4/4	Sandy SILT: olive brown, stiff, moist, fine sand
					15		ML	2.5Y 4/4	Clayey SILT: olive brown, very stiff, moist
				3.5	20		SM	2.5Y 6/8	Silty SAND: olive yellow, fine, loose, slightly moist
				3.2	25				
					30				Boring terminated at 26 feet.
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot		Boring Name: 2BB-6-15	
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau	Project Name: Douglas Aircraft	
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight		DATE STARTED: 4/18/97	DATE COMPLETED: 4/18/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 3"
				2.6			CL	10YR 2/2	Silty CLAY: very dark brown, firm, moist
				2.3				10YR 3/3	dark brown, stiff, slightly moist
					5		ML	2.5Y 5/3	Clayey SILT: light olive brown, very stiff, slightly moist
								2.5Y 4/4	olive brown
				3.1	10				firm, moist
				2.9	15				decreasing clay
				2.8	20				
				2.4	25		SM	2.5Y 5/6	Silty SAND: light olive brown, fine, loose, slightly moist
					30				Boring terminated at 26 feet.
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot	Boring Name: 2BB-6-16
DRILLING COMPANY: Quaternary Investigations	DRILLER: Joe Abreau
DRILLING METHOD (S): Earth Probe	DRILL BIT (S) SIZE: 1.5 inches
	Project Name: Douglas Aircraft
	Project Number: 974002.00
DEPTH TO WATER: Not Encountered	ELEVATION: Not Surveyed
	TOTAL DEPTH: 26 feet
LOGGED BY: J. Knight	DATE STARTED: 4/18/97
	DATE COMPLETED: 4/18/97

SAMPLES: Driven	SAMPLES: Recovered	SAMPLES: Collected	SAMPLES: Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
									Asphalt, 3"
				1.0			CL	10YR 2/1	Silty CLAY: black, firm, moist
				1.5				10YR 3/2	very dark brown
					5		ML	2.5Y 5/6	Clayey SILT: light olive brown, stiff, slightly moist
				0.7				2.5Y 5/4	light olive brown, decreasing clay
					10				
				1.7	15		ML	2.5Y 5/4	Sandy SILT: light olive brown, fine sand, stiff, slightly moist
				2.1	20		ML	2.5Y 5/4	Clayey SILT: light olive brown, stiff, slightly moist
				3.7	25				decreasing clay, some fine sand, firm, moist
					30				Boring terminated at 26 feet.
					35				
					40				

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot		Boring Name: 2BB-6-17	
DRILLING COMPANY: Water Development	DRILLER: Gary Whitley	Project Name: Douglas Aircraft	
DRILLING METHOD (S): CME-85, Hollow Stem Auger	DRILL BIT (S) SIZE: 8 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 50.0 feet
LOGGED BY: M. Balderman		DATE STARTED: 4/24/97	DATE COMPLETED: 4/24/97

SAMPLES Driven	SAMPLES Recovered	SAMPLES Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
							CL	10YR 2/2	Asphalt Concrete Sandy CLAY: very dark brown, firm, dry to damp, moderately plastic
			3 3 4						
			3 3 9		5		ML/CL	10YR 4/3	Silty CLAY/ Clayey SILT: brown, stiff, damp, slightly plastic, trace of fine sand
			3 4 7		10		ML	10YR 4/4	Clayey SILT/ Sandy SILT: brown, 30% fine sand, damp, stiff, minor calcium carbonate mottling
					15				
			6 10 16		20		CL	10YR 4/4	Silty CLAY: brown, dry to damp, moderately plastic, trace of fine sand
					25				
			4 11 15		30		SM	2.5Y 5/4	Silty SAND: light olive brown, medium dense, damp, fine, 70% sand, trace of mica
					35				
			9 12 16		40			2.5Y 6/3	light yellowish gray, damp, dense, fine to medium, 30% shell fragments, 20% fines

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: Area 6, Parking Lot		Boring Name: 2BB-6-17	
DRILLING COMPANY: Water Development	DRILLER: Gary Whitley	Project Name: Douglas Aircraft	
DRILLING METHOD (S): CME-85, Hollow Stem Auger	DRILL BIT (S) SIZE: 8 inches	Project Number: 974002.00	
DEPTH TO WATER: Not Encountered		ELEVATION: Not Surveyed	TOTAL DEPTH: 50.0 feet
LOGGED BY: M. Balderman		DATE STARTED: 4/24/97	DATE COMPLETED: 4/24/97

SAMPLES: Driven	Recovered	Collected	Penetration Resistance (blows/foot)	Head Space Reading (ppm)	Depth (feet)	Lithology	USCS Log	Munsell Color	SOIL DESCRIPTION AND DRILLING REMARKS
					45		SM	2.5Y 6/3	Silty SAND (Continued): light yellowish gray, damp, dense, fine to medium, 30% shell fragments, 20% fines
			8 18 27		50			2.5Y 5/3	light olive brown, damp, dense, fine, 40% fines, trace of fine mica, thinly laminated
									Boring terminated at 50.0 feet.
					55				
					60				
					65				
					70				
					75				
					80				

APPENDIX B
Laboratory Analytical Reports

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APPENDIX B

Laboratory Analytical Reports

Please refer to Appendix B of the Parcel A, Phase II Soil Characterization Report, transmitted in July 1997, for laboratory analytical reports. A location index is provided on the following pages.

APPENDIX B
ORANGE COAST ANALYTICAL AND ONSITE ENVIRONMENTAL LABORATORIES, INC.
REPORT INDEX

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Boring No.	Report Nos. Containing Results	Area	Boring No.	Report Nos. Containing Results
1	2BB- 1-1	41	1	2BB- 1-21	1, A
1	2BB- 1-1A	41	1	2BB- 1-22	1, 18, A
1	2BB- 1-2	41	1	2BB- 1-23	25, N
1	2BB- 1-3	12, G	1	2BB- 1-24	25, N
1	2BB- 1-4	21, M	1	2BB- 1-25	25, N
1	2BB- 1-5	21, M	1	2BB- 1-26	25, N
1	2BB- 1-6	21, M	1	2BB- 1-27	9, F
1	2BB- 1-7	12, G	1	2BB- 1-27A	35, Q
1	2BB- 1-8	12, G	1	2BB- 1-27B	35, Q
1	2BB- 1-9	12, G	1	2BB- 1-28	11, E
1	2BB- 1-10	12, G	1	2BB- 1-29	11, E
1	2BB- 1-11	12, G	1	2BB- 1-30	11, F
1	2BB- 1-12	12, G	1	2BB- 1-31	11, F
1	2BB- 1-13	12, G	1	2BB- 1-32	11, F
1	2BB- 1-14	40	1	2BB- 1-33	11, F
1	2BB- 1-15	40	1	2BB- 1-34	12, G
1	2BB- 1-16	40	1	2BB- 1-35	14, H
1	2BB- 1-17	40	1	2BB- 1-36	9, G
1	2BB- 1-18	22, L	1	2BB- 1-37	12, G
1	2BB- 1-19	1, A	1	2BB- 1-38	38
1	2BB- 1-20	1, A			
1A	2BB- 1A-1	25, O	1A	2BB- 1A-10	6, B
1A	2BB- 1A-2	30, O	1A	2BB- 1A-11	6, B
1A	2BB- 1A-3	30, O	1A	2BB- 1A-12	6, B
1A	2BB- 1A-4	30, O	1A	2BB- 1A-13	8, C
1A	2BB- 1A-5	30, O	1A	2BB- 1A-14	8, C
1A	2BB- 1A-5A	29, P	1A	2BB- 1A-15	8, C
1A	2BB- 1A-6	29, P	1A	2BB- 1A-16	8, C
1A	2BB- 1A-7	29, P	1A	2BB- 1A-17	21, M
1A	2BB- 1A-8	6, B	1A	2BB- 1A-18	42
1A	2BB- 1A-9	6, B	1A	2BB- 1A-19	42
2	2BB- 2-1	20, J	2	2BB- 2-19	Cancelled
2	2BB- 2-2	42	2	2BB- 2-20	20, J
2	2BB- 2-3	20, J	2	2BB- 2-21	20, J
2	2BB- 2-4	20, J	2	2BB- 2-22	18, I
2	2BB- 2-5	20, J	2	2BB- 2-23	14, H
2	2BB- 2-6	20, J	2	2BB- 2-24	14, 18, H
2	2BB- 2-7	20, J	2	2BB- 2-25	14, H
2	2BB- 2-8	20, J	2	2BB- 2-26	14, H
2	2BB- 2-9	19, K	2	2BB- 2-27	14, H
2	2BB- 2-10	19, K	2	2BB- 2-28	14, H

APPENDIX B
ORANGE COAST ANALYTICAL AND ONSITE ENVIRONMENTAL LABORATORIES, INC.
REPORT INDEX

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Boring No.	Report Nos. Containing Results	Area	Boring No.	Report Nos. Containing Results
2	2BB- 2-11	19, 33, K, R	2	2BB- 2-29	14, H
2	2BB- 2-12	19, K	2	2BB- 2-30	14, H
2	2BB- 2-13	19, K	2	2BB- 2-31	18, I
2	2BB- 2-14	19, K	2	2BB- 2-32	18, I
2	2BB- 2-15	19, K	2	2BB- 2-33	18, I
2	2BB- 2-16	19, K	2	2BB- 2-34	18, I
2	2BB- 2-17	19, K	2	2BB- 2-35	20, J
2	2BB- 2-18	19, K			
4	2BB- 4-1	22, L	4	2BB- 4-4	22, L
4	2BB- 4-2	22, L	4	2BB- 4-5	22, L
4	2BB- 4-3	22, L	4	2BB- 4-6	22, L
4	2BB- 4-3A	32, R			
5	2BB- 5-1	Cancelled	5	2BB- 5-25	Cancelled
5	2BB- 5-2	26, N	5	2BB- 5-26	10, G
5	2BB- 5-3	29, P	5	2BB- 5-27	13, H
5	2BB- 5-4	29, P	5	2BB- 5-28	10, G
5	2BB- 5-5	Cancelled	5	2BB- 5-29	10, G
5	2BB- 5-6	26, N	5	2BB- 5-30	15, I
5	2BB- 5-7	26, N	5	2BB- 5-31	10, G
5	2BB- 5-8	28, O	5	2BB- 5-32	10, G
5	2BB- 5-9	28, O	5	2BB- 5-33	13, H
5	2BB- 5-10	35, 41, Q	5	2BB- 5-34	13, H
5	2BB- 5-11	34, P	5	2BB- 5-35	13, H
5	2BB- 5-12	35, 41, Q	5	2BB- 5-36	13, H
5	2BB- 5-13	34, P	5	2BB- 5-37	15, I
5	2BB- 5-14	34, P	5	2BB- 5-38	15, I
5	2BB- 5-15	Cancelled	5	2BB- 5-39	13, H
5	2BB- 5-16	35, Q	5	2BB- 5-40	13, H
5	2BB- 5-17	28, O	5	2BB- 5-41	13, H
5	2BB- 5-18	28, O	5	2BB- 5-42	13, H
5	2BB- 5-19	34, P	5	2BB- 5-43	13, H
5	2BB- 5-20	21, M	5	2BB- 5-44	28, O
5	2BB- 5-21	42	5	2BB- 5-45	28, O
5	2BB- 5-22	42	5	2BB- 5-46	28, J, O
5	2BB- 5-23	16	5	2BB- 5-47	28, O
5	2BB- 5-24	Cancelled	5	2BB- 5-48	28, O
6	2BB- 6-1	31, Q	6	2BB- 6-10	24, M
6	2BB- 6-2	31, Q	6	2BB- 6-11	24, M
6	2BB- 6-3	31, Q	6	2BB- 6-12	24, M

APPENDIX B
ORANGE COAST ANALYTICAL AND ONSITE ENVIRONMENTAL LABORATORIES, INC.
REPORT INDEX

Boeing Realty Corporation, C-6 Facility
Los Angeles, California

Area	Boring No.	Report Nos. Containing Results	Area	Boring No.	Report Nos. Containing Results
6	2BB- 6-4	31, Q	6	2BB- 6-13	24, M
6	2BB- 6-5	36, R	6	2BB- 6-14	26, N
6	2BB- 6-6	36, R	6	2BB- 6-15	26, 36, N
6	2BB- 6-7	Cancelled	6	2BB- 6-16	26, N
6	2BB- 6-8	22, L	6	2BB- 6-17	37, R
6	2BB- 6-9	24, M			
36	2BB- 36-1	4, A	36	2BB- 36-10	17, I
36	2BB- 36-2	A	36	2BB- 36-11	17, J
36	2BB- 36-3	4, A	36	2BB- 36-12	17, I
36	2BB- 36-4	B	36	2BB- 36-13	39, R
36	2BB- 36-5	4, B	36	2BB- 36-14	38
36	2BB- 36-6	4, B	36	2BB- 36-15	Q
36	2BB- 36-7	4, B	36	2BB- 36-16	P
36	2BB- 36-8	7, D	36	2BB- 36-17	R
36	2BB- 36-9	17, I			
SA-NE	2BB- SA-NE-1	8, C	SA-NE	2BB- SA-NE-10	11, E
SA-NE	2BB- SA-NE-2	23, L	SA-NE	2BB- SA-NE-11	5, D
SA-NE	2BB- SA-NE-3	5, D	SA-NE	2BB- SA-NE-12	5, D
SA-NE	2BB- SA-NE-4	5, D	SA-NE	2BB- SA-NE-13	11, E
SA-NE	2BB- SA-NE-5	3, C	SA-NE	2BB- SA-NE-14	11, E
SA-NE	2BB- SA-NE-6	7, D	SA-NE	2BB- SA-NE-15	9, F
SA-NE	2BB- SA-NE-7	7, D	SA-NE	2BB- SA-NE-16	9, F
SA-NE	2BB- SA-NE-8	23, L	SA-NE	2BB- SA-NE-17	R
SA-NE	2BB- SA-NE-9	7, D			
SA-NW	2BB- SA-NW-1	3, C	SA-NW	2BB- SA-NW-8	3, C
SA-NW	2BB- SA-NW-2	2, B	SA-NW	2BB- SA-NW-9	3, C
SA-NW	2BB- SA-NW-3	2, B	SA-NW	2BB- SA-NW-10	3, C
SA-NW	2BB- SA-NW-4	2, B	SA-NW	2BB- SA-NW-11	3, C
SA-NW	2BB- SA-NW-5	3, C	SA-NW	2BB- SA-NW-12	3, C
SA-NW	2BB- SA-NW-6	3, C	SA-NW	2BB- SA-NW-13	FGL
SA-NW	2BB- SA-NW-7	23, L			

APPENDIX C
Kennedy/Jenks Consultants Standard Operating Guides

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DRAFT

SOG-1

KENNEDY/JENKS CONSULTANTS
STANDARD OPERATING GUIDELINES

PERSONNEL DECONTAMINATION

INTRODUCTION

This guideline describes field procedures typically followed by Kennedy/Jenks Consultants for personnel decontamination. Decontamination of personnel is critical to health and safety during and after environmental fieldwork. It protects personnel from hazardous substances that can contaminate and eventually permeate protective clothing, respiratory equipment, tools, vehicles, and other equipment used onsite. Decontamination reduces exposure of site personnel to such substances by minimizing the transfer of harmful materials into clean areas and preventing the mixing of incompatible chemicals. It also protects the community by preventing uncontrolled transportation of contaminants from the site.

RECOMMENDED EQUIPMENT

The materials, equipment, and facilities described in the following list are not required in every case of personnel decontamination. However, they represent all that might be required for sites where maximum decontamination procedures are necessary.

- Drop cloths (plastic or other suitable material) on which heavily contaminated equipment and outer protective clothing can be deposited.
- Collection containers, such as drums or suitably lined trash cans, for storing disposable clothing, heavily contaminated personal protective clothing, or equipment that must be discarded.
- Lined box with absorbent for wiping or rinsing off gross contaminants and liquid contaminants.
- Large tubs to hold wash and rinse solutions; tubs should be at least large enough to hold a worker's booted foot and allow full access for washing.
- Non-phosphate wash solutions (e.g., Alconox, Liquinox) to wash off debris and chemicals and reduce hazards associated with any contaminants.

- Rinse solutions (e.g., potable or distilled water) to remove contaminants and contaminated wash solutions.
- Long-handled soft-bristled brushes to wash and rinse off contaminants.
- Paper or cloth towels for drying protective clothing and equipment.
- Lockers or containers for storage of decontaminated non-disposable clothing (e.g., hard hat, boots) and equipment.
- Department of Transportation (DOT)-approved containers for contaminated wash and rinse solutions.
- Plastic sheeting, sealed pads with drains, or other appropriate means of secondary containment of contaminated wash and rinse solutions that might be spilled during decontamination.
- Shower facilities for full body wash or, at a minimum, wash sinks available to personnel.
- Soap or wash solution, wash cloths, and towels for personnel.
- Lockers or containers for clean clothing and personal item storage.

LEVEL C DECONTAMINATION PROCEDURES

At a minimum, the following procedures apply when operating in a Level C exclusion zone:

1. Deposit items used onsite on plastic drop cloth. Segregation at the drop site reduces the probability of cross-contamination.
2. Scrub outer boots, gloves, and splash suit with decontamination solution or detergent water. Rinse items with generous amounts of water. Follow this step scrupulously for protective clothing that is not disposable.
3. Remove outer boots and gloves. Deposit or discard them in container with plastic liner.
4. To continue decontamination outside the exclusion zone, change canister or mask when leaving the zone. Upon re-entering, remember to gear up again.

5. Remove boots, chemical-resistant splash suit, and inner gloves and deposit them in separate containers lined with plastic.

6. Remove respirator by taking off facepiece. Avoid touching the face with the fingers. Deposit the facepiece on a plastic sheet.

7. As a field wash, clean hands and face thoroughly and shower as soon as possible. Wash respirator facepiece with respirator cleaning solution.

8. Ensure that all decontamination procedures are in accordance with the project sampling and analysis plan and Kennedy/Jenks Consultants Standard Operating Guideline, Investigation-Derived Residuals (Unit 9.0).

LEVEL D DECONTAMINATION PROCEDURES

If operating in a Level D area, perform the following procedures before leaving the site:

1. Wash and rinse all reusable equipment and garments. If gear is to be used elsewhere, wash it with detergent and then rinse with generous amounts of water.

2. If grossly contaminated, discard disposable protective clothing in appropriate container.

3. Wash hands and face thoroughly, and shower as soon as possible.

SPECIAL NOTES

When working in an exclusion zone, be sure that the decontamination area is placed in an upwind direction (plus or minus 20 degrees) from the site.

INVESTIGATION-DERIVED WASTES

Refer to the specific project sampling and analysis plan for details of disposition of investigation-derived wastes.

EMERGENCY DECONTAMINATION PROCEDURES

1. If the decontamination procedure is essential to the life saving process, decontamination must be performed immediately.

2. If a heat-related illness develops, protective clothing should be removed as soon as possible. Protective clothing and equipment should be washed, rinsed, and/or cut off.

3. If medical treatment is required to save a life, decontamination should be delayed until the victim is stabilized, or until decontamination will not interfere with medical treatment.

4. Dispose of contaminated clothing and equipment properly.

5. Alert medical personnel to the emergency.

6. Instruct medical personnel about potential contamination.

7. Instruct medical personnel about specific decontamination procedures.

REFERENCES

NIOSH/OSHA/USCG/EPA. 1985. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities. Washington, D.C. Federal Way).

U.S. Environmental Protection Agency. 1988. Standard Operating Safety Guidelines. United States Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, DC.

SOG-3

KENNEDY/JENKS CONSULTANTS
STANDARD OPERATING GUIDELINES

SAMPLE PACKAGING AND SHIPPING

INTRODUCTION

This standard operating guide presents methods for shipping non-hazardous materials, including most environmental samples, via UPS, Federal Express and Greyhound. Many local laboratories offer courier service as well.

EQUIPMENT

- Coolers
- Sorbent material
- Bubble-wrap
- Strapping tape
- Labels and pens
- Chain-of-Custody forms
- Chain-of-Custody seals
- UPS, Greyhound, or Federal Express manifests

Samples shipped to the Pacific Environmental Laboratory (PEL) in San Francisco (CA) can be shipped with the United Parcel Service (UPS) or Federal Express on a next-day basis unless other arrangements are agreed to. Greyhound should only be used if there is direct service (e.g. Sacramento or Bakersfield to San Francisco). Ordinary coolers without drain plugs or with sealed drain plugs similar to coolers used for refrigerating food while camping can normally be used to ship non-hazardous samples. Specific requirements for packaging materials only apply if the samples being shipped are known to be hazardous materials as defined in 49 CFR 171.8 (samples are not considered hazardous waste and therefore manifest requirements do not apply). UPS holds shippers responsible for damage occurring in the event of accidents when a hazardous material is shipped as a non-hazardous material. Samples which obviously are hazardous materials should therefore be shipped as such, and samples which most likely are not hazardous materials should be shipped in coolers. Guidelines for shipping hazardous materials by UPS are provided in the Guide for Shipping Hazardous Materials available from UPS.

Specific labels are used for shipments of hazardous materials which the Field Services Supervisor is responsible for providing.

Procedures further described below therefore pertain to samples being shipped as nonhazardous materials.

Absorbent pads should be placed in the bottom of the shipping container to absorb liquids in the event of the jar breakage. Liquid samples in glass jars should also be wrapped in plastic bubble wrap. Volatile organics analysis (VOA) vials should be packed in sponge holders. An equal weight of ice substitute should be used to keep the samples below 4 degrees centigrade for the duration of the shipment (up to 48 hours). Labels of samples may get wet (which is typical) and should be covered with clear tape. Strong tape should be used to tape the coolers closed. Transportation regulations and UPS guidelines require absorbent capacity of the material to equal the amount of liquid being shipped; each pad absorbs approximately 1 quart of liquid. Designated shipping to a coordinator who is responsible for all shipment of samples for your projects.

Chain-of-custody analysis request sample disposition forms must accompany shipments of samples to the PEL in San Francisco. This form must accompany shipments to laboratories, in addition to other requirements of the laboratories. The form is self explanatory; if you have questions talk to the sample custodian at PEL . Keep copies of all forms you send. The sample disposition section of the form requires us to specify whether unused portions of samples will be returned to the client, to us, or disposed of by the lab, in which case the lab assesses a $5 per sample disposal fee.

Samples should be preserved in accordance with requirements specified in the EPA requirements. Pay attention to where different kinds of acids and flammable are stored (e.g., nitric acid and nitrate compounds are not to be kept or shipped with hydrochloric acid and sulfuric acid).

DRAFT

SOG-11

KENNEDY/JENKS CONSULTANTS
STANDARD OPERATING GUIDELINE

BORING AND SUBSURFACE SOIL SAMPLING

INTRODUCTION

This guideline describes the equipment and procedures that are used by Kennedy/Jenks Consultants personnel for drilling and for collecting soil samples.

EQUIPMENT

- Drill rigs and associated drilling and sampling equipment as specified in workplan:
  - Hollow stem auger
  - Air-rotary casing hammer
  - Dual tube percussion hammer
  - Cable tool
  - Mud rotary
  - Reverse rotary
- CME, 5 ft x 94 mm continuous-core barrels (hollow-stem auger)
- 2.5-inch or 2.0-inch I.D. split-spoon drive sampler
- 2.5-inch or 2.0-inch brass liners and sealing materials (plastic end caps, Teflon seals, silicon tape, zip-lock plastic bags)
- Large capacity stainless steel borehole bailer
- Foxboro FID-Organic Vapor Analyzer (OVA)
- HNU PID-Organic Vapor Analyzer
- OVM
- Sampler cleaning equipment

  - Steamcleaner
  - Generator
  - Stiff-bristle brushes
  - Buckets
  - High purity phosphate-free liquid soap, such as Liquinox
  - Methanol (if necessary)
  - 0.1N nitric acid (if necessary)
  - Deionized water
  - Potable water

- Insulated sample storage and shipping containers

- Personal protective equipment (refer to project site safety plan)

TYPICAL PROCEDURE

1. Obtain applicable drilling and well construction permits prior to mobilization.

2. Clear drilling locations for underground utilities and structures by Underground Service Alert (USA) and subcontractors.

3. Have all downhole equipment steamcleaned prior to drilling each boring.

4. Ensure that soil borings not to be completed as monitoring wells are drilled with an auger drill rig, using hollow stem augers of appropriate size.

5. Make sure that borings not completed as monitoring wells are grouted to the surface, using a neat cement-bentonite grout (containing approximately 5 percent bentonite).

6. Ensure that borings made to construct shallow monitoring wells are drilled with an auger drill rig that uses hollow stem augers of appropriate size to provide an annular space of a minimum of 2 inches between borehole wall and well casing.

7. Verify that drill borings used to construct deeper monitoring wells are drilled with a dual tube percussion hammer or air-rotary casing hammer, using a steel drive casing of appropriate size, or with hollow stem augers through a steel conductor casing.

8. Collect soil samples for lithologic logging purposes with a CME continuous coring system in 5-foot increments.

9. Collect soil samples for lithologic logging and chemical and physical analyses by driving a split-spoon drive sampler, in 2.5-foot to 5-foot increments, below the depth of the auger bit with a rig-mounted hammer. Record the standard penetration resistance. If the sample is pushed rather than driven, be sure to record the push force.

10. When drilling with air-driven drill rigs, collect soil samples for lithologic logging purposes from the cyclone separator discharge on the dual tube percussion hammer, which separates air from formation cuttings as the drive casing is advanced.

11. Have the soils classified in the field in approximate accordance with the visual-manual procedure of the Unified Soil Classification System (ASTM D-2488-90) and the Munsell Color Classification.

12. Prior to each sampling event, wash the split-spoon drive sampler and brass liners with high purity phosphate-free soap, and double-rinse them with deionized water and methanol and/or 0.1N nitric acid, as appropriate.

13. At each sampling interval, collect soil in one brass liner for potential laboratory analysis. Cover this sample in Teflon sheets, seal it with plastic caps, and wrap it with silicon tape. Place a completed sample label on the brass liner. Then see that the samples are placed in appropriate containers and stored at approximately 4 °C.

14. As a field screening procedure (if applicable), at each sampling interval put the soil from one of the brass liners into an airtight container and allow it to equilibrate. After this, use an OVA to monitor the headspace in the container. If significant organic vapors are detected with the OVA, save the appropriate brass sample liners for potential laboratory analysis.

15. Complete chain of custody forms in the field and transport the samples in insulated containers, at an internal temperature of approximately 4 °C, to the selected laboratory.

16. If applicable, as described in the site safety plan, use an OVA to analyze in situ air samples from the breathing zone, the inside of the augers or casing, and other locations as necessary.

INSTALLATION AND TESTING OF ISOLATION CASING

1. Upon completion of the initial small-diameter boring, use a rotary drill bit of appropriate diameter to ream the boring to a depth (to be determined). Use a

bentonite mud mixture, in accordance with standard drilling practice, to maintain hole stability and to minimize infiltration and development of a mud cake on the borehole wall.

2. When reaming is completed, install isolation casing in the boring. Use conductor casing of an appropriate grade of 14-inch-diameter steel with a wall thickness of 0.25 inch, per the following specifications:

   a. Sections are 20, 10, or 5 feet in length.

   b. Casing sections are beveled or butt-jointed.

   c. Field joints are arc-welded with 70 percent weld penetration, having a minimum of two passes per circumference.

   d. Welding rod is compatible with casing material.

   e. Joints are watertight.

   f. Casing centralizers are set on the bottom, middle, and top of the total casing length. Centralizers are installed in sets of four, spaced at 90°, and attached at the bottom by a tack weld. They are flanged 2 inches at the top and bottom to contact the borehole wall.

3. Make volumetric calculations prior to grouting, to estimate the total volume of grout required to fill the annular space. The amount of grout actually used must be compared with this estimate. Ensure that the grout meets the following specifications:

   a. Volumes of grout used must be within 10 percent of estimated value.

   b. The grout consists of ASTM C150 Type II cement and water at a ratio of 5 gal. of water per 94 lb sack of cement, weighing approximately 118 lb per ft. Approximately 5 lb of powdered bentonite for each sack of cement is mixed into the grout.

Note that leakage tests or a bond log might be required to validate the grout seal.

4. Grout conductor casing into place by one of the following methods:

   a. Pressure-grout from the bottom of the casing, using a packer or Braden-head to force the grout into the annular space between the conductor casing and the borehole wall.

   b. Fill the casing with grout and use a spacer plug apparatus to force the grout into the annular space between the conductor casing and the borehole wall. The spacer plug must be composed of a material that can be left in the boring and later drilled through to complete it.

5. After allowing the grout to set, continue drilling with an appropriate diameter hollow stem auger. A rotary bit can be used initially to drill through any grout that might have hardened in, or directly below, the casing.

EQUIPMENT CLEANING

1. Prior to drilling each boring, steamclean downhole equipment (augers, well casing, sampler).

2. Before collection of each drilling sample, steamclean or wash sampling equipment (sampler and brass liners) with a brush, in a solution of high purity phosphate-free soap and potable water. Rinse the equipment with potable water and methanol and/or 0.1N nitric acid, as appropriate. Follow this with double-rinsing using distilled water.

3. Before leaving the site at completion of drilling, steamclean downhole equipment and vehicles that require cleaning.

INVESTIGATION-DERIVED RESIDUALS

Place soil cuttings and other residuals in appropriately labeled containers for disposition by the client. All soil samples transported to the laboratory must be returned to the client for disposition. Kennedy/Jenks Consultants is available to assist the client with options for disposition of residuals.

DRAFT

SOG-20B

KENNEDY/JENKS CONSULTANTS
STANDARD OPERATING GUIDELINE

HANDLING AND DISPOSAL OF INVESTIGATION-DERIVED WASTE

INTRODUCTION

Environmental site investigations usually result in generation of some regulated waste, particularly if the project involves drilling and construction of monitoring wells. Any potentially hazardous or dangerous material that is generated during a site investigation must be handled and disposed of in accordance with applicable regulations (22 CCR, Chapter 30). This guideline provides a procedure to be used for dealing with investigation-derived wastes that have the potential of being classified as hazardous or dangerous, including soil cuttings, well development water, and decontamination water.

EQUIPMENT

- DOT-approved packaging (typically DOT 17E or 17H drums)
- Funnel
- Bushing wrench
- 15/16-inch socket wrench
- Shovel
- Appropriate markers (spray paint, paint pen)
- Plastic sheeting
- Drip pans
- Pallets

TYPICAL PROCEDURES

Preparing Containers

1. Place each container on a pallet if it is to be moved with a fork lift after it is full.

2. Place plastic sheeting under containers for soil and drip pans under containers used to hold water.

3. Ensure that packaging materials are compatible with the wastes to be stored in them. Bung-type drums should be used to contain liquids. If a liquid is corrosive, a plastic or polymer drum should be used.

   Solids should be placed in open-top drums. Liners are placed in the drums if the solid material is corrosive or contains free liquids. Gaskets are also used on open-top drums.

Storing Wastes

1. As waste materials are generated, place them directly into storage containers.

2. Do not fill storage drums completely. Provide sufficient outage so that the containers will not be overfull if their contents expand.

3. After filling a storage drum, seal it securely, using a bung wrench or socket wrench, for a bung-type or open-top drum, respectively.

4. Label drums or other packages containing hazardous or dangerous materials and mark them for storage or shipment. To comply with marking and labeling requirements, affix a properly filled out yellow hazardous waste marker and a DOT hazard class label to each waste container. Do not mark drums with Kennedy/Jenks Consultants' name. All waste belongs to the client. Mark accumulation start-date.

5. During an ongoing investigation, use a paint marker to mark the contents, station number, date, and quantity of material on each drum or other container. Do not mix investigation-derived wastes with one another or with other materials. Do not place items such as Tyvek, gloves, equipment, or trash into drums containing soils or liquids, and do not mix water and soil. Disposable protective clothing, trash, soil, and water materials should be disposed of in separate containers.

6. Upon completion of field work, or the portion of the project that generates wastes, notify the client as to the location, number, contents, and waste type of waste containers. Remind the client of the obligation to dispose of wastes in a timely manner and in accordance with applicable regulations.

REGULATIONS

22 CCR, Chapter 30 California Hazardous Waste Regulations.

49 CFR 100-177, Federal Transportation of Hazardous Materials Regulations.

EPA Region X, Technical Assistance Team. 1984. Manual for Sampling, Packaging, and Shipping Hazardous Materials. Seattle, WA: EPA.

DRAFT

SOG-21

KENNEDY/JENKS CONSULTANTS
STANDARD OPERATING GUIDELINE

BOREHOLE LOGGING

INTRODUCTION

This guideline describes procedures followed by Kennedy/Jenks Consultants personnel for classifying soils and for preparing borehole logs and other types of soil reports. It assists in obtaining uniform descriptions of soils encountered during borehole programs and enhances consistency among Kennedy/Jenks Consultants personnel and among projects.

Borehole logging is the systematic observation and recording of geologic and hydrogeologic information from subsurface borings and excavations. As adopted by Kennedy/Jenks Consultants, and in accordance with general practices followed by the profession, the Unified Soil Classification System (USCS), (ASTM D 2488-90) is used to identify, classify, and describe soils.

RECOMMENDED MINIMUM REQUIREMENTS

Soil classification and borehole logging should be conducted by a geologist or another professional trained in the classification of soils.

EQUIPMENT

- Boring log forms (1st and 2nd sheet, K/J Form F-40.1, 40.2)
- Daily inspection report forms (K/J Form F-3, F-4)
- Chain of custody forms/request for analysis forms
- USCS (ASTM D 2488-90) Table and Classification Chart
- Soil color chart (i.e., Munsell)
- American Geological Institute (AGI) data sheets

- Graph paper
- Engineer's scale
- Previous project reports and boring logs
- Pocket knife or putty knife
- Hand lens
- Supply of clean water
- Dilute HCL
- Gloves (latex, nitrile as described in project Health & Safety Plan)
- Personal protective clothing and equipment, as described in the project Health & Safety Plan
- Sample containers (brass, steel or aluminum liners, plastic or glass jars)
- Decontamination equipment and supplies
- Aluminum foil, teflon sheets and paper towels

TYPICAL PROCEDURES

Soil Classification

Soils are typically logged in conjunction with advancing boreholes and sampling subsurface soils. Although the guideline focuses on classifying soil samples obtained from boreholes, this particular procedure also applies to soils and sediments collected using other techniques (e.g., post hole digger, scoop, Van Veen sampler, and backhoe).

The USCS categorizes soils into 15 basic groups, each with distinct geologic and engineering properties. The following steps are required to classify a soil sample:

1. Observe basic properties and characteristics of the soil. These include grain- size grading and distribution and influence of moisture on fine-grained soil.

2. Assign the soil a USCS classification and denote it by the standard group name and symbol.

3. Provide a written description to differentiate between soils in the same group, if necessary.

Many soils have characteristics that are not clearly associated with a specific soil group. These soils might be near the borderline between groups, based on either grain-size grading and distribution, or plasticity characteristics. In this case, assigning dual group names and symbols might be appropriate (e.g., GW/GC or ML/CL).

The three basic soil groups are:

- Coarse-Grained Soils. For soils in this group, more than half of the material is larger than No. 200 sieve (0.074 mm).

- Fine-Grained Soils. For soils in this group, one half or more of the material is smaller than No. 200 sieve (0.074 mm).

- Highly Organic Soils. This group includes soils with high organic content, such as peat.

  Note: No. 200 sieve is the smallest size that can be seen with the naked eye.

Classification of Coarse-Grained Soils

Coarse-grained soils are classified on the basis of:

1. Grain size and distribution
2. Quantity of fine-grained material (i.e., silt and clay)
3. Character of fine-grained material

Classification uses the following symbols:

Basic Symbols	Modifying Symbols
G - gravel	W - well graded
S - sand	P - poorly graded
	M - with silt fines
	C - with clay fines

The following are basic facts about coarse-grained soil classification:

- The basic symbol G is used if the estimated percentage of gravel is greater than that for sand. In contrast, the symbol S is used when the estimated percentage of sand is greater than the percentage of gravel.

- Gravels range in size from 3 in. to 1/4 in. (No. 4 sieve). Sands range in size from No. 4 sieve to No. 200 sieve. Use the Grain Size Scale Used by Engineers (ASTM Standards D422-63 and D643-78) to further classify grain size as specified by the USCS.

  Note: This grain size scale differs from the Modified Wentworth Scale used in teaching most geologists. Also, it introduces a distinction between sorting and grading.

- The modifying symbol W indicates good representation of all particle sizes.

- The modifying symbol P indicates that there is a predominant excess or absence of particle sizes.

- The symbol W or P is only used when there is less than 15 percent fines in a sample.

- Modifying symbol M is used if fines have little or no plasticity (silty).

- Modifying symbol C is used if fines have low to high plasticity (clayey).

- The following rules apply for the written description of the soil group name:

Types of Soil	Rule
Sands and gravels (clean)	Less than 5 percent fines
Sands (or gravels) with fines	5 to 15 percent fines
Silty (or clayey) sands or gravels	Greater than 15 percent fines

- Other descriptive information includes:

  - Color
  - Maximum grain size
  - Composition of grains
  - Approximate percentage of gravel, sand, and fines (use a percentage estimation chart)

Modifiers	Description
Trace	Less than 5 percent
Few	5 to 10 percent
Little	15 to 25 percent
Some	30 to 45 percent
Mostly	50 to 100 percent

  - Mineralogy
  - Grain shape (round, subround, angular, subangular)
  - Moisture (dry, moist, wet)
  - Structure
  - Organic material
  - Odor

Classification of Fine-Grained Soils

Fine-grained soils are classified on the basis of:

1. Liquid limit
2. Plasticity

Classification uses the following symbols:

Basic Symbols	Modifying Symbols
M - silt	L - low liquid limit
C - clay	H - high liquid limit
O - organic	
Pt - peat	

The following are basic facts about fine-grained soil classification:

- The basic symbol M is used if the soil is mostly silt, while symbol C applies if it consists mostly of clay. Use of symbol O indicates that

organic matter is present in an amount sufficient to influence soil properties. The symbol Pt indicates soil that consists mostly of organic material.

- Modifying symbols are based on the following hand tests conducted on a soil sample:

  - Dry strength (crushing resistance)
  - Dilatency (reaction to shaking)
  - Toughness (consistency near plastic limit)

- Soil designated ML has little or no plasticity and can be recognized by slight dry strength, quick dilatency, and slight toughness.

- CL indicates soil with slight to medium plasticity, which can be recognized by medium to high dry strength, very slow dilatency, and medium toughness.

- OL is used to describe a soil that is less plastic than CL soil and can be recognized by slight to medium dry strength, medium to slow dilatency, and slight toughness.

- MH soil has slight to medium plasticity and can be recognized by low dry strength, slow dilatency, and slight to medium toughness.

- Soil designated CH has high plasticity and is recognizable by its high dry strength, no dilatency, and high toughness.

- OH soil is less plastic than CH soil and can be recognized by medium to high dry strength, slow dilatency, and slight to medium toughness.

- Other descriptive information includes:

  - Color
  - Moisture
  - Consistency (very soft, soft, firm, hard, very hard)
  - Structure
  - Compactness (loose, dense) for silts
  - Cementation (uses hydrogen chloride)
  - Odor

Logging Refuse

This procedure applies to the logging of subsurface samples collected from a landfill or other waste disposal site:

1. Observe refuse as it is brought up by the hollow stem auger or bucket auger.

2. If necessary, place the refuse in a plastic bag to examine the sample.

3. Record observations according to the following:

   - Composition (by relative volume), e.g., paper, wood, plastic, cloth, cement, construction debris. Use such terms as "mostly" or "at least half." Do not use percentages.

   - Moisture content: dry, damp, moist, wet.

   - State of decomposition: highly decomposed, moderately decomposed, slightly decomposed, etc.

   - Color: obvious mottling included.

   - Texture: spongy, plastic (cohesive), friable.

   - Odor.

   - Combustible gas indicator readings (measure downhole).

   - Miscellaneous: dates of periodicals and newspapers, degree of drilling effort (easy, difficult, very difficult).

REFERENCES

"Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)." ASTM D-2488-90.

Compton, R. R. 1962. Manual of Field Geology. New York: John Wiley & Sons, Inc.

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